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The Pangs Of Supporting Mobile & Remote Employees

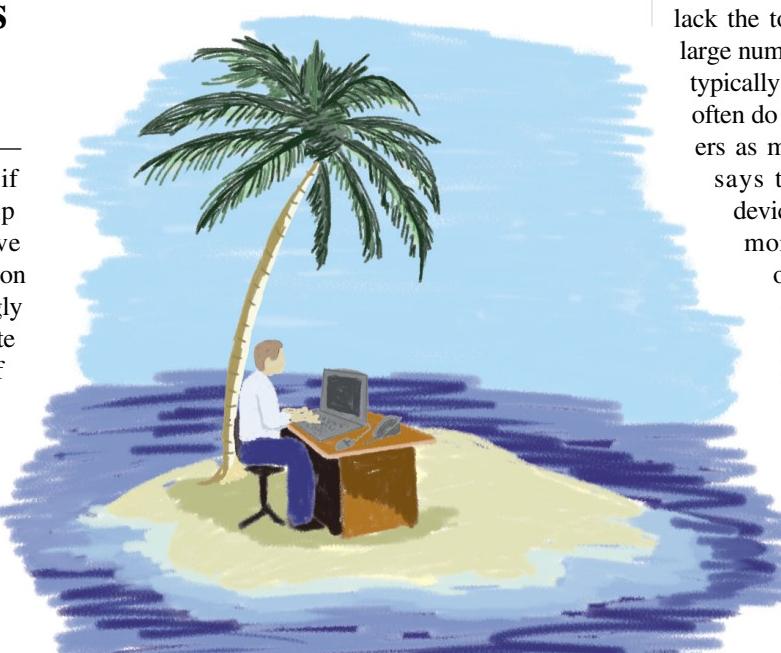
Some Tips For Enterprise Help Desk Workers

by Chris A. MacKinnon

IT'S A WIRELESS ENTERPRISE—there's no doubt about it. And if you work in an enterprise help desk, it's safe to say that you've already felt the pain and frustration of trying to support the increasingly diverse crowd of mobile or remote employees. With such an array of wireless products available today, even the most skilled help desk technicians are finding it tough to support them all, especially when enterprise networks can vary so greatly.

Heavy-Laden

Some help desk technicians are finding this type of support to be an outright burden. And if you find things getting to the point where you are ignoring your mobile employees (and letting them solve their own technical problems), you know that there needs to be some middle ground.



Michael Cohen, director of marketing for TRAQ Wireless (www.traq.com), says he agrees that this is even happening in today's small to midsized enterprises. Cohen says, "Typical IT help desks are not equipped to

provide support for mobile employees and find it difficult to support them because they lack the tools required to be effective. The large number and variety of wireless devices typically overwhelm IT organizations who often do not view support for mobile workers as mission-critical." However, Cohen says the growing power of wireless devices makes mobile employees much more productive and critical to an organization, which ultimately puts more pressure on the IT organization to improve its support for these workers.

Jason Wrye, business development executive with Tridia (www.tridia.com), says he agrees that this is the case with many enterprises. "However," he notes, "it doesn't have to be that way. Solutions out there (such as Tridia's iTivity) will allow you to reach almost any employee at anytime. That means whether the remote employee is behind a firewall or unknown network architecture, there is no reason why you can't safely and securely support that employee." TRAQ Wireless

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you haven't even received yet, but there are a number of reasons to include disposal in your purchasing plan.

John Carcone, senior vice president of financial services with Forsythe Technologies (www.forsythe.com), explains when he thinks companies should consider equipment disposal. "Right from the start of the initial acquisition, IT decision makers need to consider how long the assets will be operational and cost-effective and how they're going to dispose of their computer at the end of its useful life. Waiting until disposal time can lead to higher disposal costs, budgeting issues, and the temptation to postpone the issue further. In reality, companies that don't have a proper disposal plan in place often resort to a 'Plan B' that involves storing all their

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[One thing that may not be on your purchasing checklist is how you plan to get rid of the equipment when you're done with it.]

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The Help Desk

Today's enterprise help desks are being asked to provide assistance to an increasingly diverse crowd of employees in terms of their needs.

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■ **A10 Networks** released a new 2U appliance, the iDsentrie 2000. ■ **Coraid** released a new version of its high-capacity SR1521 EtherDrive Storage Appliance. ■ **SearchInform Technologies** announced it is taking its SearchInform MailSniffer RC software in a new, information-security direction. ■ **Staco Energy** introduced the TreStar P Series, a parallelable UPS that parallels up to eight modules for capacity or redundancy without the need of a paralleling cabinet. ■ **Stonesoft** announced a pair of firewall defense appliances: the StoneGate FW-5000 and StoneGate FW-5100. ■ The new **Voltage Security Network** is a managed email security service that makes email privacy transparent to the user. ■ **Watchfire** announced AppScan Enterprise 5 Web-based application security software.

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CORRECTION: In our January 19 article on page 4 covering IT equipment repair services, please note the correct company name is OnForce, www.onforce.com, not OnSource.

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**1. What is the size of your company
(how many employees)?**

- Less than 10
- 200 to 499
- 10 to 99
- 500 to 999
- 100 to 199
- 1,000+

**3. What is your annual computer hardware/
software purchasing budget?**

- \$0 to \$9,999
- \$10,000 to \$24,999
- \$25,000 to \$49,999
- \$50,000 to \$99,999
- \$100,000 to \$249,999
- \$250,000 to \$499,999
- \$500,000 to \$999,000
- \$1,000,000+

**2. How often do you purchase computer
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Upcoming IT Events

- MARCH -

DAMA International Symposium
March 4-8
Boston, Mass.
www.wilshireconferences.com

VoiceCon
March 5-8
Orlando, Fla.
www.voicecon.com

Gartner Business Intelligence Summit
March 12-14
Chicago, Ill.
www.gartner.com/2_events/conferences/bi5.jsp

Boston SecureWorld Expo
March 14-15
Boston, Mass.
www.secureworldexpo.com

TelecomNEXT
March 18-21
Las Vegas, Nev.
www.telecom-next.com

Gartner Outsourcing Summit
March 19-21
Dallas, Texas
www.gartner.com/2_events/conferences/std10.jsp

FOSE
March 20-22
Washington, D.C.
www.fose.com

Visit Processor at Booth 1643

Data Center World
March 26-27
Las Vegas, Nev.
www.afcom.com

Visit Processor at Booth 514

Data Center World
March 26-27
Las Vegas, Nev.
www.afcom.com

RFID World
March 27-29
Dallas, Texas
www.shorecliffcommunications.com/rfid07

Secure IT Conference
March 27-29
Sacramento, Calif.
www.secureitconf.com

- APRIL -

Infotec
April 16-18
Omaha, Neb.
www.infotec.org

Gartner Symposium/ITXpo
April 22-26
San Francisco, Calif.
www.gartner.com/it/sym/2007/spg9_spdg9_home.jsp



Cisco Issues Router Warning

CISCO SYSTEMS has warned that 77 of its routers are vulnerable to what Symantec and Indiana University researchers have named "drive-by pharming." In this hack attack, attackers entice victims to go to malicious sites that use a device's default password to take the users to bogus sites that could implant malware onto their computers or steal their identities. Cisco, as well as Symantec and the university, recommended that those with the problem routers change the default username and password to access the router's configuration settings and disable its HTTP server feature. The vulnerable routers are in Cisco product lines it sold to home offices, small offices, branch offices, and telecommuters.

Dell Hires Senior Execs

FOLLOWING THE RECENT shakeup of executives at Dell, including former CEO Kevin Rollins leaving and Michael Dell taking his place, the company has hired a couple more senior executives from related industries. Ron Garriques, who was leading the handsets unit at Motorola, has joined Dell to head up a recently created group for consumer products. Dell didn't say whether Garriques' appointment means the company is planning to move into the field of mobile phones and other consumer electronics. In addition to Garriques, Dell has appointed Michael Cannon, the former chief executive at Solelectron, to be in charge of its manufacturing operations.

90% Of Email To Be Spam

ACCORDING TO a report released by Marshal's Threat Research and Content Engineering Team, spam is on track to comprise 90% of all email by the end of the year. Increasing amounts of spam originating in China and South Korea have led to a recent 30% increase in spam. Analysts at Marshal have also said that spam will likely continue to be among the biggest security threats companies face this year. In a report released by Symantec earlier this month, it showed that spam hit a high in December that continued through last month.

Court Rules Against Microsoft In Patent Dispute

IN A CASE STEMMING back to 2003, a federal jury in San Diego has ruled against Microsoft and ordered the company to pay \$1.5 billion in damages to Alcatel-Lucent. Alcatel-Lucent has claimed that Microsoft violated its patent by using MP3 audio technology in Windows. Microsoft, however, claims that it licensed the technology from Fraunhofer for \$16 million. The technology was developed jointly by Fraunhofer and Lucent's Bell Labs. In a statement, Microsoft reacted to the verdict by saying it is "completely unsupported by the law or the facts." Microsoft plans to fight the verdict.

Veritas To Pay \$30 Million

VERITAS WILL PAY \$30 million to settle a U.S. Securities and Exchange Commission case. The case stems from an inquiry four years ago that investigated Veritas and AOL in a secret deal with each other. The SEC says Veritas used fraudulent accounting practices and helped America Online commit fraud when both AOL and Veritas restated their revenue, which had risen \$20 million each, to hide the gains the companies got

MarketPlace NEWS

from exchanging advertising and software licensing. According to the SEC's filing, Veritas will pay the \$30 million "without admitting or denying the allegations." Meanwhile, the IRS is also seeking millions from Veritas because it claims the company owes back taxes and penalties.

Wireless LAN Sales Up

THERE WERE FEW surprises in the latest report on wireless LAN sales released by Synergy Research Group. Sales of wireless LAN equipment were up 15% over the past year, according to Synergy, with sales of enterprise WLAN equipment especially strong, attributed to sales of centralized solutions, according to Senior Analyst Aaron Vance. Sales of enterprise-class WLAN equipment were up slightly, although sales of consumer equipment account for nearly 60% of the WLAN market. Cisco was the market leader in enterprise WLAN sales, with its sales up 35% during the past year; Symbol, which was recently purchased by Motorola, came in second, although its year-over-year sales dropped 21%. Aruba, 3Com, and ProCurve rounded out the top five.

Cisco Buys Reactivity

CONTINUING TO broaden its portfolio of products in different fields, Cisco announced plans to acquire Reactivity, a small firm that makes products to help route XML (Extensible Markup Language) traffic on the Web. Under the terms of the deal, which is slated to close before April 28 (the end of its third fiscal quarter), Cisco plans to pay \$135 million in cash and options to purchase the company. Following the acquisition, Reactivity's product lines and technology will fit into Cisco's Application-Oriented Networking sector. Reactivity offers hardware and software that work together to assist firms in deploying, controlling, and increasing the XML traffic traversing their network.

iPhone Dispute Settled

APPLE AND CISCO will share the iPhone name and "explore opportunities for interoperability" between the two companies' iPhone products, according to an agreement. The agreement comes after Cisco filed suit against Apple claiming its use of the iPhone name for a cellular handset announced in early January infringes on a Cisco trademark. Linksys, which is a division of Cisco, sells a cordless phone called the iPhone that lets users make VoIP calls. Spokespeople for Apple and Cisco declined comment on what could result from the collaboration between the two companies.

WATCH THE STOCKS This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

| Company | Symbol | Year Ago | Feb. 19 \$ | Feb. 26 \$ | % change from previous week |
|-------------------------|--------|----------|------------|------------|-----------------------------|
| Avaya | AV | \$10.27 | \$13.00 | \$12.93 | ▼ 0.54% |
| BEA Systems | BEAS | \$10.46 | \$12.93 | \$11.93 | ▼ 7.73% |
| Computer Associates | CA | \$27.08 | \$26.81 | \$26.80 | ▼ 0.04% |
| Cisco Systems | CSCO | \$19.86 | \$27.49 | \$27.24 | ▼ 0.91% |
| Dell | DELL | \$30.38 | \$24.39 | \$23.80 | ▼ 2.42% |
| Electronic Data Systems | EDS | \$27.30 | \$29.17 | \$29.13 | ▼ 0.14% |
| Google | GOOG | \$368.75 | \$469.94 | \$464.93 | ▼ 1.07% |
| HP | HPQ | \$34.07 | \$42.77 | \$40.29 | ▼ 5.8% |
| IBM | IBM | \$80.71 | \$98.99 | \$96.91 | ▼ 2.1% |
| Intel | INTC | \$20.61 | \$21.23 | \$20.85 | ▼ 1.79% |
| McAfee | MFE | \$23.27 | \$29.89 | \$31.69 | ▲ 6.02% |
| Microsoft | MSFT | \$26.70 | \$28.74 | \$29.07 | ▲ 1.15% |
| Oracle | ORCL | \$12.40 | \$16.70 | \$16.82 | ▲ 0.72% |
| Red Hat Software | RHT | \$25.09 | \$24.00 | \$23.79 | ▼ 0.88% |
| Sun Microsystems | SUNW | \$4.30 | \$6.29 | \$6.27 | ▼ 0.32% |
| Symantec | SYMC | \$17.52 | \$17.95 | \$17.36 | ▼ 3.29% |

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Storage & Transport Cases

Choosing Cases Wisely Will Help Protect Your IT Assets During Storage & Shipping

by Chris Jackson

• • •

NEW IT GEAR USUALLY arrives from vendors in well-designed packaging that protects the equipment from damage during transit from the vendor's warehouse. And most enterprises promptly discard this packaging after installing the equipment. And for good reason: This packaging is typically designed for one-time use. Yet many enterprises need to either temporarily store equipment or ship it to a new location as business conditions change. The solution is using robust storage and transport cases for your IT equipment.

Regardless of the type of equipment needing protection, there are vendors offering custom cases designed to withstand hostile environments with aplomb. These cases are designed to protect against a number of threats: vibration and shock impact, water damage, chemical and dust infiltration, and

numerous other "hard knocks" that can impair the proper functioning of your systems when they're brought back into use. Whether you need to ship a server to a remote location or simply store it in a local warehouse, using the proper case will protect your investment.

Hardigg Engineering

Hardigg's Storm Case iM2975 is a medium-sized case that can hold approximately 4 cubic feet of equipment in a waterproof shell made of injection-molded, high-performance HPX resin. HPX resin provides excellent impact resistance without imposing a significant weight penalty. According to Hardigg, Storm Cases are on average 12% lighter than their competition.

SNAPSHOT

Hardigg Industries Storm Case iM2975

Vortex valve technology automatically regulates the pressure inside this case to protect against changing environments that can prevent you from opening your case at high altitudes

www.stormcase.com

The iM2975 also features press-and-pull latches that are easy to use yet durable. Inline wheels are included to ease handling, and the case corners are rounded to add strength while limiting damage to vehicles and aircraft during shipping.

The Storm Case Vortex valve system works by using a GORE-TEX gas-permeable membrane that allows gas molecules to pass through while blocking out liquids and microparticles. The Vortex valve is self-regulating and has no moving parts or buttons.

Hardigg also utilizes three-point hinges with two pins. These hinge pins have a center block stop to prevent them from being forced out after installation. This helps ensure that the case won't accidentally open. Hardigg internally uses multiple layers of 2-pound polyurethane cubed foam that offers easy customization for a perfect fit.

UK International

The LoadoutCase series of storage and transport cases from UK International is designed with hostile environments in mind. Sealed with a resilient neoprene o-ring, the 1327 LoadoutCase can withstand 1-meter water submersions, as well as sealing out corrosive gasses and dust.

SNAPSHOT

UK International 1327 LoadoutCase

Product line utilizes stainless steel twist-lock latches and spring-loaded handles that conform to military-standard requirements

www.ukinternational.com

Featuring large 3-inch wheels with stainless steel axles and an extendable fiber glass handle, the LoadoutCase is comfortable to pull across rough surfaces. The handle is mounted externally, maintaining the

strength and structural integrity of the inner storage chamber.

The LoadoutCase is manufactured out of UKtekmat 2.0, a polypropylene resin blend that provides a significant increase in impact resistance over the competition while reducing weight by up to 20%.

Access to the LoadoutCase is provided by spring-loaded, powder-coated steel handles that have stainless steel twist-lock latches. Six individual latches secure each case, and users can stack multiple cases in an interlocking fashion. With pluck foam filling, users can easily configure the 3.3-cubic-foot interior to accommodate multiple items.

SKB

If it's good enough for the military, it's probably from SKB Cases. SKB's 3i-2015-10B is a durable, Mil-Standard waterproof case manufactured out of a polypropylene copolymer resin. Designed to withstand serious abuse, the 3i-2015-10B complies with the stringent demands of the U.S. military.

The 3i-2015-10B has an automatic ambient pressure equalization valve that meets MIL-STD-648C, as well as a case composition that is resistant to UV, solvents,



SNAPSHOT

SKB Cases 3i-2015-10B Transport Case

Military compliance ensures that the 3i-2015-10B transport case will protect your IT equipment in the harshest of climates

www.skbcases.com

corrosion, fungus, and impact damages as specified by MIL-STD-810F.

Comfort features include a snap-down, rubber, over-molded, cushion-grip handle and both a pull-handle and roller blades to make transportation easy. The case is secured by a continuous molded-in hinge that provides a watertight, submersion-withstanding storage environment.

SKB is so confident of the durability of the 3i-2015-10B (and all of its other hard-shell cases) that it offers a Million Mile Guaranty to the product line. This unconditional guarantee is forever; if you manage to break your case, SKB will repair or replace it at no cost to you. SKB products are also available through resellers, including Rackmount Solutions (www.Processor.com/Rackmount-Solutions).

Pelican

Boasting more than 8,000 cubic inches of storage space, the Pelican 1630 Transport Case is ideal for transporting heavy equipment in a safe fashion. This all-purpose, watertight case features two double-hand side grips for easy team lifting, heavy duty polyurethane wheels with stainless steel ball bearings, and nylon hubs for extended life.



SNAPSHOT

Pelican 1630 Transport Case

\$449.95

Stainless steel reinforced padlock protectors add extra defense against cutting and theft while your valuable components are in transit

www.Processor.com/Transport1630

The 1630 Transport Case's lid includes a polymer o-ring to lock out dust and moisture, as well as lid organizers, utility padded divider sets, and TSA-approved PeliLocks that allow airport security to access your cases while keeping miscreants out. This case also features a GORE-TEX pressure equalization valve that prevents vacuum lock, ensuring that you can open the case at any altitude. Pelican backs the 1630 with an unconditional lifetime guarantee.

Zero Manufacturing

The Transitainer line of storage and transport cases from Zero Manufacturing is built with rotationally molded polyethylene plastic that features interlocking ribs allowing for easy stacking of multiple containers. The ZRC3018-0905 has recessed hardware

SNAPSHOT

Zero Manufacturing Transitainer ZRC3018-0905

Cases that utilize rotationally molded plastic to provide durability at an affordable price

www.zerocases.com

compliant with ATA-300 standards and spring-loaded, military-type handles.

To cope with adverse environments, the ZRC3018-0905 has a gasketed tongue and groove construction for the case lid with a breather valve for pressure regulation. As an option, the ZRC3018-0905 can also be fitted with a humidity indicator and custom foam cushioning.

With uniform wall thickness, rugged corner construction, and nearly stress-free shells, the ZRC3018-0905 can take the abuse that is common in overland or air freight shipping. The ZRC3018-0905's lid is secured by cam action and positive locking latches, and the case handles are rattle proof and spring loaded with 90-degree stops. □

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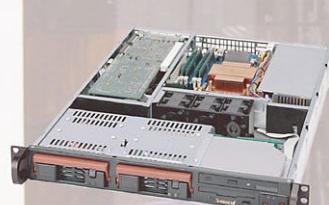
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POWER PROTECTION

JANUARY 12, 2007

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3. Is automatic defragmentation needed in today's environment?

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6. Hidden scheduled defrag costs:

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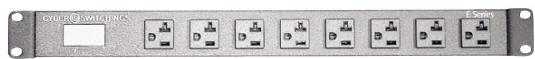
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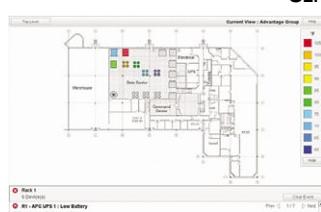
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To Outsource Or Not To Outsource

When Does It Make Sense To Outsource Your Help Desk?

by Ericka Chickowski

BECAUSE MANY IT managers consider help desk support duty low-level grunt work,

they often mistake the value of this function to the organization. For most nontechnical staff—including executives—the help desk is the most common and visible contact they

will ever have with their IT department. A positive or negative experience via the help desk can go a long way toward either engendering good will or alienating people who may have control over future projects' purse strings.

As a key lubricant to ensuring workers have the tools to do their jobs, the help desk is also critical for an organization's efficiency. Due to these factors, it is never a good idea to treat your help desk service levels lightly. However, that doesn't mean that an organization has to perform the job itself. During the last five years, an increasing number of organizations have recognized this and have chosen to implement



Make The Right Choice

The decision to outsource help desk and desktop support is heavily dependent on the organization's individual situation. We've outlined a few situations where outsourcing is likely warranted and a few where it is not.

YES

Users are complaining about level of service. The typical help desk fields 1.25 calls per person per month. That is 1,250 calls per month for a 1,000-person organization, which can be a huge burden for a small IT staff. It might cost more to do so, but if service level is a big deal, outsourcing could be the ticket.

Upper management wants you to focus on strategic projects. Outsourcing help desk and desktop support can free up some of the smart thinkers

within IT to do what they do best—come up with smart solutions to enable the business.

You are a small organization in growth mode, and you've made an acquisition. "Say you are a small organization that is private with a significant amount of equity investment that is about to acquire a larger firm, that would be a case where maintaining your own help desk doesn't give you any competitive advantage and may slow you down," Paul Roehrig of Forrester Research says.

NO

Your organization is small, maybe fewer than 300 people. According to both Roehrig and ABS Associates CEO Rosemarie Mitchell, it rarely makes financial sense for smaller companies to outsource the

help desk without mitigating circumstances. The problem is that smaller organizations often could use the help—they just can't afford it.

Your organization has a "do it ourselves" kind of culture. "If your philosophy is not to outsource and someone says 'Oh, let's just try it,' it is going to be very difficult for the vendor to succeed," says Mitchell.

Your organization already has help desk infrastructure, and there are no major complaints. Unless your organization has to deal with the cost of a high turnover among help desk agents, it might make sense to stick with existing infrastructure. "It's like anything: Nobody is going to change. The status quo is always easier," Mitchell says.

outsourced help desk solutions. In fact, 2006 was the first year where the majority of IT service organizations have outsourced at least some aspect of their support, according to annual figures reported by the Help Desk Institute.

There are several reasons for this shift. In spite of its importance, the help desk remains a tactical, not a strategic function within the organization.

"For the small and medium-size business, it helps unbundle noncore processes, which frees up time and resources to do more strategic activities," says Paul Roehrig of Forrester Research.

In addition, help desk duties tend to be universal and similar from organization to organization, making them a prime candidate for outsourcing. And help desk costs are more than just head-count costs—there are usually infrastructure requirements to implement the right help desk tools to keep up service levels. As a result, even if it costs less for support staff than for an outsourced service, total cost will likely be less to outsource.

SME Considerations

While cost is often the first factor that may lead an organization to look into

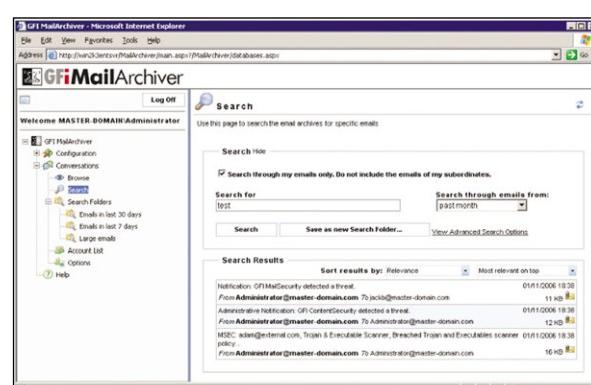
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GFI MailArchiver makes it easy to search for and access emails.

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Using GFI MailArchiver, enterprises can reduce reliance on PST files and easily keep up with the latest compliance and legal requirements. The program can reduce email storage requirements by up to 80% and increase Exchange performance while easing backup and restoration.

Network administrators can avoid the pains of PST file management, eliminating corrupted PST files and the lengthy, troublesome process of fixing them. GFI MailArchiver also makes it possible to overcome the risk of PST loss if hardware fails on the employees' workstations.

Employees can use their Web browser to easily locate and access all their emails from anywhere in the world. And a OneClick Restore process makes it easy for employees to quickly restore their emails.

The latest update to GFI MailArchiver, version 4, allows archiving directly to an NTFS drive, with no need to purchase a license for an MS SQL server. Version 4 also features new email retention policies and a Saved Search function so users can save their search requests for repeated use.

Other new features in version 4 include the ability to search within various types of email attachments such as MS Word, Excel, PDF files, OpenOffice, and WordPerfect. Version 4 also incorporates flexible email access control through Active Directory integration, which allows configured users to access other users' archived emails. For example, GFI MailArchiver can be configured to allow a departmental manager to access all his team's email.

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The Pangs Of Supporting Mobile & Remote Employees

Continued from Page 1

also offers a similar product called TRAQ Support, which helps administrators manage and support a mobile-connected workforce with wireless devices.

Help Is On The Way

Between TRAQ Wireless and Tridia, we have come up with a list of 10 tips for improving the technical support that SMEs can provide to their mobile and remote employees.

Choose centralized support solutions. Wrye says even for small to midsized

enterprises, application management can be challenging. Choosing a support solution that can be managed without going to each workstation or server will simplify administration and security. Solutions that provide a centralized architecture will allow you to manage passwords, domains, and logging for the entire network. Cohen says mobile users should have a single phone number to call for all of their wireless support. He says they should not have to call carriers.

Choose a solution that covers all platforms. Wrye says, "Many solutions only cover one or two platforms, so many companies have multiple tools to cover support needs. There are solutions available (such as Tridia's iTivity) that are multiplatform." He says this will simplify the support process and reduce the TCO for help desk support solutions.

Deploy an intuitive support system. Cohen says that the most effective enterprises will deploy an intuitive support system, either internally or by outsourcing to wireless management firms. He notes, "This system allows users to provide their name and phone number and provides the tech support person with complete information about what the mobile employees' devices and rate plans. This speeds the service and reduces end-user frustration."

Security is much more than encryption. When security is breached, 95% of the time, Wrye says, it is from an internal source. "That means a strong password methodology should be essential over encryption." He says at least two-factor, if not three-factor, authentication needs to be used (username, password, and perhaps group or domain name, also). "Logging of who views what, when, and why is an added level of security that is a requirement for those who must adhere to regulatory compliance, including HIPAA, Sarbanes-Oxley, and so on," Wrye says.

Flexibility is a must. To adapt to the growth and changing needs of today's enterprise, Wrye says support solutions should be scalable and be flexible toward ever-changing security needs. "Choose a solution that is easy to manage at five workstations for 500,000," Wrye notes. "Solutions such as Tridia's iTivity provide a concurrent licensing model that is based on use, not the number of workstations. Plus, the centralized architecture makes it easy to add machines without added work."

Use a platform that can allocate charges. Cohen says that many leading enterprises are using a platform that can allocate usage charges down to an individual level to properly distribute wireless costs. He notes that this capability should be available even in a pooled rate plan environment.

Define your wireless policy. Cohen believes that the starting point to effective support for mobile employees begins with clearly defined and articulated policies for the wireless devices and plans available to employees. He explains, "If no policy exists, tech support is faced with an unmanageable number of devices to support."

Solution support and maintenance is a must. According to Wrye, support and maintenance are both key factors to consider when choosing the right solution for your enterprise. Wrye notes, "There are many solutions out there that are free. However, until you have been through the pain and frustration of real downtime, you may not realize the cost of free." Wrye says SMEs should choose a solution that has a history (and a level of quality) in continued support and maintenance.

Define service-level agreements for support. In Cohen's opinion, an effective technical support function establishes service levels and takes them seriously. Cohen explains, "Service levels should be established for how quickly calls are answered, how quickly a live person will be available, and how fast calls will be resolved at level 1 and level 2." Cohen says establishing carrier access also helps. "The tech support system," he says, "should have direct access to wireless carriers to speed the resolution of issues."

Provide end-user visibility. Cohen says mobile employees should have the ability to see their wireless consumption at any point in time in order to help them manage costs more effectively. "Overage charges," Cohen notes, "account for a significant piece of wireless spending in the enterprise." If employees have the ability to keep an eye on things, the bottom line looks better, which makes it easier for help desk technicians to justify the costs of some of the more expensive (and effective) wireless and remote solutions.

IDC, a market intelligence firm, has predicted that many companies will be in for tough sledding after the number of global mobile workers expands to 878 million by 2009. And as if it's not already tough enough for enterprises trying to roll out intricate wired communication technologies. It's now a vast reality that mobile and wireless support challenges are many. So enterprise support of mobile devices must be clear-cut and, more importantly, doable. Organizations that take a high-level view of wireless and remote support should be in a better position to manage and support mobile technology and be able to assess the impact that it has on business. □

Two Short Tips

Here are two additional tips that IT managers can bear in mind when supporting wireless and mobile-based employees.

Implement a knowledge base. With the large variety of mobile devices on the market, it is critical that the tech support group use a knowledge base to help them support mobile users.

Provide rate-plan optimization. As mobile employee needs change over time, due to role changes and travel pattern changes, it is important that their rate plans get evaluated periodically in order to optimize costs to the enterprise.

To Outsource Or Not To Outsource

Continued from Page 9

outsourcing the help desk, Roehrig says that SMEs should be mindful of the fact that cost savings may be lower for them than for larger organizations.

"For the midmarket, there needs to be an understanding that the ROI is going to be less, due to head-count restraints," he says. "And the transition and transformation costs also need to come under consideration."

On top of this, other experts warn organizations about straight cash cost comparisons when weighing help desk outsourcing options.

"A lot of companies, when they think about outsourcing, they think about the labor costs," says Rosemarie Mitchell, CEO of the help desk outsourcing firm ABS Associates (www.abs-inc.com). "All they think about is, 'How many agents would I need to support my number of

users?'—and that's all they look at. They don't look at what the infrastructure costs. Not only do you have to get the tools, but (they have) to be modified for the organization itself."

Mitchell explains that the apples-to-oranges comparison between in-house salary and total cost for outsourcing will almost always show the salary as being cheaper.

"But if they take all of their costs into consideration, they probably are saving money," she says.

There are sometimes cases where there is not always a savings, though, she says. Both she and Roehrig warned that companies on the smaller end of the midmarket scale, say with 200 users, may not have

very good financial incentive to outsource help desk duties.

"If an organization is very small, it is usually not worth the trouble," Roehrig says. □

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Dataline

Offers a variety of help desk services designed to meet your specific needs
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PROCESSOR

Dumping Old Equipment

Continued from Page 1

old machines in a room somewhere . . . indefinitely."

Protecting The Environment

The European Union recently enacted legislation aimed at protecting the environment by banning the use of certain substances in computer and electronics equipment and regulating how and where such equipment can be disposed of. Some states in the United States and other countries around the world are following suit with their own

environmental initiatives mimicking the RoHS (Restriction of Hazardous Substances) legislation in the EU.

The U.S. Environmental Protection Agency regulations differ from state to state. Currently, 26 states in the United States have adopted computer equipment as hazardous waste that must be disposed of at a certified disposal center or face fines from the government. Some manufacturers, such as Dell (www.dell.com) or HP (www.hp.com), are providing end-of-life recycling procedures to consumers. When searching for an outlet for asset disposal, companies also need to consider EPA or RoHS regulations.

Clifton McKay with DMD Systems Recovery (www.dmdsystems.com) says, "It has proven to be beneficial for larger

Processor.com

organizations to partner with an approved asset disposal company and let the asset disposal company worry about current regulations and disposal of assets as opposed to having an IT manager spend their valuable time trying to keep current with the changing regulations."

What Choice Do You Have?

There are a number of options available for getting rid of old computer equipment. (See the "How Do I Get Rid Of This Stuff?" sidebar.) Some of the options will vary depending on how old the equipment is and whether it could still serve a useful purpose within your company or for a different organization that you may sell or donate the equipment to.

Planning in advance how and when equipment will be disposed of can help guide the overall budgeting and asset planning for the company in general and ensure that you don't enter crisis mode at the last minute. The implications of environmental regulations, and the fines associated with noncompliance, also warrant some extra attention on the part of companies when it comes to planning for equipment disposal.

The intricacies of the environmental regulations may be more than most companies are willing to try to understand and keep up with, making computer equipment disposal companies an attractive

alternative. Forsythe's Carcone sums up the impact of environmental legislation on equipment disposal: "Disposal regulations are creating a whole new set of issues for companies. . . . People are talking about it, but if and when a huge fine comes down, we'll start to see dramatic changes in how disposal is actually handled." □

Computer Equipment Disposal Companies

For many companies, it makes sense to at least explore the option of hiring an asset disposal company—professionals that do this for a living—to manage the disposal details. Here are a few options.

Data Media Source

San Jose, Calif.-based company specializing in reselling or disposing of old storage media datamediasource.com

Direct Computer Disposal

Recycles or disposes of all electronic devices, including cell phones and stereo equipment directcomputerdisposal.com

HiTech Assets

One-stop asset disposal will resell or dispose of your surplus computer equipment www.hitech-assets.com

Media Recovery

Offers comprehensive data center services including excess equipment buyback or disposal www.mediarecover.com

Recycle Your Media

Specializing in recycling or disposal of obsolete and surplus storage media www.recycleyourmedia.com

How Do I Get Rid Of This Stuff?

Getting rid of computer equipment, particularly obsolete computer equipment, is not as easy as it sounds. Finding a new owner may be quite difficult, and environmental laws in many states and throughout the world prohibit you from simply tossing it in a landfill. So what are the options available to help you properly dispose of computer equipment you no longer need?

X Leasing. By leasing equipment, you can dodge the entire issue of disposal because you simply give it back to the lessor when the lease expires.

X Donating. If you can find a nonprofit or charity organization in need of computer equipment, you can donate the equipment and write off at least the depreciated value as a charitable contribution.

X Selling. You may be able to sell the equipment if it isn't too obsolete. However, equip-

ment that is too old may be more hassle in packing and shipping than the profit generated from the sale warrants.

X Storage. If the equipment you are taking out of service could still have some practical use, storing it is an option. However, there is no point in taking up space storing obsolete equipment that has no chance of being used again.

X Disposing. You can just throw it away. However, you need to be cognizant of the various statutes and regulations that govern the disposal of computer equipment or face some potentially hefty fines.

X Disposal Companies. You can hire a disposal company and essentially outsource the burden of figuring out what to do with the equipment. A good disposal service company will be aware of and compliant with any necessary environmental regulations.

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We purchase new, used, excess, and idle computer and IT equipment
www.Processor.com/DMD2

Media Recovery

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DATA CENTER SERVICES

FEBRUARY 2, 2007

Don't Trash Your Tapes

RecycleYourMedia.com Offers Safe, Sound Disposal

WHAT DO YOU DO with backup tape media you no longer want? Unfortunately, most media and hardware ends up in a landfill, which puts your company's security—not to mention the environment—at risk.

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RecycleYourMedia.com purchases a range of tape media, including these popular brands.

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Matthew Bernard, IT network manager at John Wiley & Sons, says, "Although

hesitant to release our used data tapes, I found Recycle Your Media's data tape recycling service to be secure, professional, and more than I expected."

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When The Help Needs Help

Where To Turn When Help Desks Require Assistance

by Christian Perry

IN THE WORLD OF IT, even the help frequently needs help. No help desk is immune from the daily challenges spawned from the support and troubleshooting tasks demanded by the enterprise, and it's no secret that these departments are increasingly turning to robust hardware and software assistance products to help them better serve employees and customers.

"Technological complexity has dramatically increased in the past few years," says Nathan McNeill, co-founder and vice president of product management for Bomgar (www.bomgar.com), a provider of appliance-based remote support products. "The support organization used to be supporting only a discrete set of tools and technology. Today's support organization has to be able to support not only the ailing application or system but also the ecosystem in which the system lives—all the applications, services, and devices that it interfaces and integrates with."

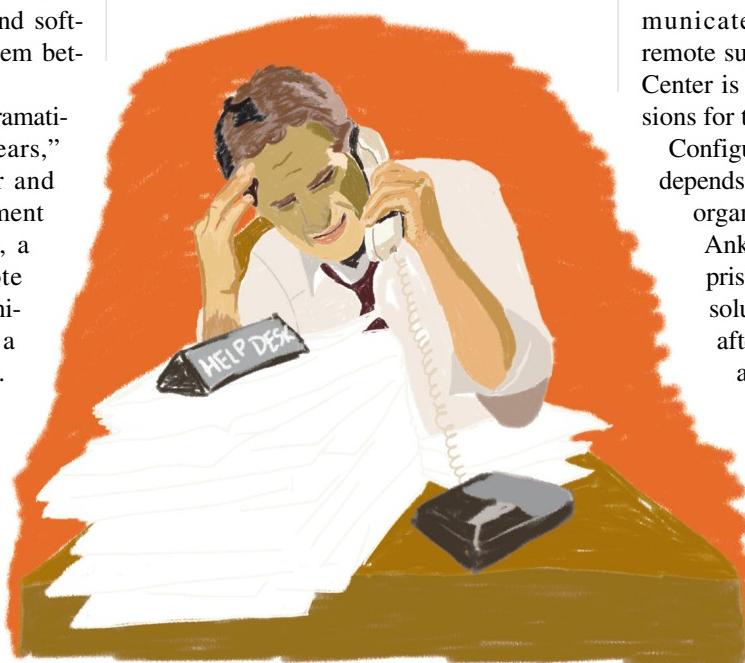
In addition, as the technical landscape in the enterprise moves beyond the office walls, help desk personnel often find themselves scrambling to deliver the same effective support to mobile workers that they provide for in-house employees, despite policies that aren't quite flexible enough to offer solid guidance for dealing with this new workforce element.

"We live in an ever more mobile and connected environment," McNeill explains. "Whereas yesterday, the support rep may have been supporting only users within a single network, today the same person is now supporting users at home, on the road, in hotel rooms, and on Wi-Fi hotspots. The ability of these users to be productive is directly related to how well they are supported."

Bomgar Box

Bomgar's Bomgar Box, formerly known as the SupportDesk appliance, is one such

product that helps to streamline the support process in this age of mobility. The appliance aims to deliver balance between both that mobile aspect and security, thanks to firewall compatibility, 256-bit SSL encryption, multisession handling, and true reboot/auto-reconnect.



"The Bomgar Box is revolutionizing remote support by enabling the support rep to remotely control a user's computer through firewalls without requiring that a software client be preinstalled on the user's system," McNeill says. "This drastically reduces incident handling times—sometimes by as much as 70%—and increases customer satisfaction."

The Bomgar Box comes in three flavors: the B300, designed for larger enterprise users; the B200, for small and midsized enterprises; and the B100, for sole proprietors. The B300 accommodates enterprises with 100 or more support representatives, while the B200 fits enterprises with 25 or fewer reps.

McNeil notes that the boxes are easy to set up and use, with typically no training required to handle the core functionality of

the product. Customers should also appreciate the simplicity of the Bomgar Box because they're required only to click a link to grant remote control to technicians.

LogMeIn Rescue

Remote support of PCs can also be accomplished efficiently through software options, such as LogMeIn's LogMeIn Rescue (secure.logmeinrescue.com). This SaaS (software as a service) gives help desk personnel instant access to remote PCs over the Web without the need to install software.

Three inter-related components compose LogMeIn Rescue. The Technician Console is an online interface help desk technicians use to conduct remote support sessions, whether they initiate new sessions or respond to inbound requests waiting in a shared queue. The Customer Applet is a small (600KB) executable file that downloads to the remote PC and provides the interface through which technicians communicate with customers and conduct remote support. Finally, the Administration Center is used to create and assign permissions for technicians and groups.

Configuration time on the help desk side depends on the complexity and size of the organization, but according to Marton Anka, CTO of LogMeIn, most enterprises can be up and running with the solution in a matter of hours. Further, after LogMeIn Rescue is configured and ready to go, the support process becomes smooth sailing.

"For the remote customers being supported, they simply click a link or icon or enter a PIN code into a Web page to receive support," Anka says. "The Customer Applet looks and feels like an instant [messaging] program, so there is little to no learning curve."

LiveTime Help Desk

Dropping a help desk product into a convoluted IT environment isn't exactly a project most administrators envy. LiveTime Software (www.livetime.com) seeks to eliminate the potential integration nightmares with its LiveTime Help Desk, a zero-footprint, vendor-neutral solution that can be deployed on any J2EE (Java 2 Enterprise Edition) environment, including BEA WebLogic (www.bea.com) and IBM WebSphere (www.ibm.com), and any operating system.

LiveTime Help Desk uses LDAP or Active Directory to integrate authentication of various user groups, allowing for instant user authentication from a central repository. A setup wizard that allows scheduling of regular synchronization helps administrators keep the database up-to-date.

Citrix GoToAssist

Help desk organizations charged with the task of handling increasing call volume with budgets that aren't also moving up—or are actually moving down—usually find themselves in precarious situations. Add in the necessity to reduce costs involved with long incident handling times and support-related travel, and the need for help becomes paramount.

GoToAssist (www.gotassist.com) from Citrix Online aims to reduce these costs through an efficient, wide-ranging support environment for business-critical applications and environments. This hosted solution works using a customized Web portal, through which end users can submit support requests that appear in the help desk's GoToAssist Web-support queue. A thin client is downloaded to the user's device (with his or her permission), giving the technician the ability to diagnose, troubleshoot, and resolve the incident.

"IT help desks face continuing pressure to reduce costs and increase productivity," says Shelly Cobb, product marketing manager for GoToAssist. "In addition,

Use A Selection Strategy

There's no scarcity of help desk products available for SMEs, which means that managers seeking the right solution for their particular environments could face a seemingly impossible task. But according to LogMeIn's Marton Anka (secure.logmein.com), it's important to remember that a product should improve the help desk experience for both the technicians and the users they support.

"When evaluating a solution, IT managers should look for ones that are easy to use by help desk technicians, as well as easy for remote customers to accept," Anka says. "If it isn't easy, technicians won't use it, resulting in wasted costs, time, and effort. Customers who are frustrated by the support process will be frustrated by the organization as a whole."

According to Anka, enterprises should select a solution that's fast to deploy and immediately usable—not weeks after it's selected. Further, managers must ensure the cost doesn't outweigh the product's benefits, which should include the ability to increase efficiencies, such as enabling technicians to handle more incidents in less time, and speed up resolutions times.

"Tools should also allow managers to track effectiveness," Anka says. "Access to reports about technician activity, support sessions, and customers' opinions allow IT managers to better gauge the benefits. Additionally, remote support tools should be flexible and mold to your business—not the other way around."

traditional support metrics, such as average handling time, leave many IT help desks unable to relate day-to-day metrics back to business goals, or worse, lead the help desk in the wrong direction."

GoToAssist solves this problem by giving end users the chance to immediately evaluate the support experience, in turn allowing help desk organizations to address session metrics and maintain higher standards of customer satisfaction and loyalty, Cobb says.

Seek Help

Although some enterprises find success with in-house, proprietary help desk solutions, others quickly discover that their current support architectures can easily collapse under the weight of progressively more complex technologies, as well as employees or customers who are more mobile than ever. Third-party software and hardware products can easily come to the rescue, in turn making everyone happy.

"A positive impact is faster problem resolution for happier, loyal end users," Anka says. "If supporting external customers, it significantly improves retention, renewal, and add-ons for existing customers—and referrals for new ones."

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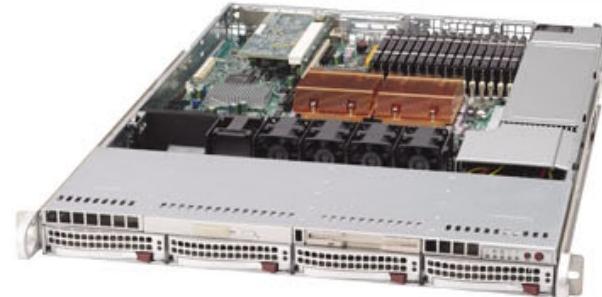
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WIRELESS

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Optional Honeycomb Interference Mapping Windows XP software can be run right on BumbleBee-TABLET hardware while still in the field or later as a desktop application. The Honeycomb software consists of three parts: Projector, Collector, and Analyzer. Sources of interference can be separated from 802.11 WLAN signals, allowing the user to graph severity of interference, percentage of channel capacity

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ConnectX architecture to address the data center need for cost-effective bandwidth, improved quality of service, and protection of an enterprise's infrastructure investment.

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THE GROWING DEMAND for better application performance is driving the increased adoption of clustered servers and server virtualization on top of multicore processors. But connecting these servers in a way that maximizes their performance poses I/O connectivity challenges. Many current solutions are inadequate for the demands of tomorrow's server and storage networks.

Mellanox, known for its advances in InfiniBand technology, has created the

Product Releases

PHYSICAL

Fire Protection

■ **Amerex** introduced the Amerex CPS (Clean Agent Pre-Engineered System), which protects companies from losing data and equipment to fire. The Amerex CPS includes FM-200 Waterless Fire Protection and flow calculation technology. The Amerex CPS can calculate pipe sizes, maximum pipe lengths, and quantity of elbows necessary for a tank fill range. The Amerex CPS FM-200 Waterless Fire Protection also includes smoke detection and alarms.

Power Protection

■ **Staco Energy** introduced the TreStar P Series, a UPS that parallels up to eight modules for capacity or redundancy without the need of a paralleling cabinet. The TreStar P Series is available in 125 to 150kVA and 180 to 225kVA. The UPS features a 0.9 power factor output, vector-controlled IGBT inverter, and a battery management system. The TreStar P Series can withstand a 25% voltage overload for 10 minutes. The 125kVA and 150kVA

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COMMUNICATIONS

Network & Systems Management

■ **A10 Networks** released the latest version of its network identity management firmware, IDsentrie 2.0, as well as a new 2U appliance, the IDsentrie 2000 system. A10 networks is targeting the new appliance at large enterprises. The firmware and appliance offer features than can immediately resolve IP-to-ID (IP addresses to user identity) problems. The package includes an enhanced GUI and a new reporting feature that lets users view more than 140 IDsentrie reports. The unit also offers support for SQL, including Microsoft SQL, MySQL, and Oracle SQL, and has a parser feature that lets the IEM (IDsentrie Identity Event Manager) parse text-based events from third-party devices. The 2U appliance is rack-mountable and has two SFP Fibre ports and eight Gigabit Ethernet ports. It supports up to 2,000 devices and 20,000 users.

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■ **AirMagnet** has introduced Enterprise Analyzer for Cisco Unified Wireless Networks. Enterprise Analyzer is compatible with Cisco lightweight APs and provides data collection, analysis, and optional reporting. With Enterprise Analyzer, APs can operate in "sniffer" mode and even provide alerts for both onsite and remote locations when necessary. Enterprise Analyzer checks for signals, noise, interference, congested channels, device configurations, and other performance-related events. Enterprise Analyzer 3.0 is available starting at \$9,995 for three controllers and one company license.

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■ **KACE** announced a new version of its KBOX 1000 Series Systems Management Appliance, which includes the KBOX Asset Management Module and support for Red Hat Enterprise Linux 5.0. The Asset Management Module provides inventory, assets, and configuration tools for managing not only computer assets but also mobile and telecom equipment. KBOX provides automation for audit, tracking, and data reconciliation processes. It also offers license compliance, security audits, and notifications and alerts.

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Security

■ **DCB** unveiled its ET-6601 Encrypted Ethernet Tunnel, which uses AES 256-bit encryption to secure data as it passes between private networks. The unit features three 10/100Base-T Ethernet ports; a serial port; and power, port activity, and connection LEDs. The device is capable of 10Mbps of throughput with encryption enabled. The ET-6601 is available for \$1,495.

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■ **Open Text** and **Sun Microsystems** partnered to create a scalable email management package for global organizations. The package helps these businesses monitor and archive large quantities of email for compliance and litigation needs. According to Open Text, the management package can handle more than two billion emails per year. It includes Livelink ECM – Email Monitoring For Microsoft Exchange or Livelink ECM – Email Monitoring For Lotus Notes, Sun Fire x86, 64-bit, as well as UltraSPARC-based servers that run the Solaris operating system.

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Who & What Is On Your Network?

A10 Networks Has The Answer

by Julie Sartain

• • •

WHAT CAN YOU DO WHEN nonbusiness applications are using your company's bandwidth and causing critical business applications to suffer in performance? Employees are complaining that the sales database is running so slow they can't get their bids on time, and it looks like the biggest offenders are two of the company's vice presidents.

A10 Networks' EX Series and AX Series are designed to not only fix the problem but also report the guilty parties and then reallocate the bulk of the bandwidth to the valid business applications, leaving the nonbusiness programs running at a snail's pace. This is a far better deterrent than a corporate mandate that says no personal Internet usage is allowed.

"The EX Series is the first WAN management appliance to provide instant application and user identity capabilities to instantly solve the question of 'Who and what is on my network?'" says Phil Kwan, director of product marketing at A10 Networks.

This appliance helps IT departments skillfully map out their network traffic to see what applications are traversing the edge, how much bandwidth they're using, when they're being used, and who is using them, notes Kwan. With this information, IT managers can intelligently allow, block, or shape the amount of bandwidth any application uses.

The AX Series is the industry's best price-performance application acceleration switch, continues Kwan, helping organizations maximize application availability through a high-performance and scalable application delivery platform. "The AX's Advanced Core Operating System (ACOS) scales performance across multiple decoupled CPUs and specialized pro-

grammable ASICs linearly to ensure maximum scalable performance," he says.

Competition for the AX Series application acceleration switch includes F5's Big-IP (www.Processor.com/F5Networks), Citrix's NetScaler 12000 (www.Processor.com/Citrix), and Foundry's ServerIron (www.Processor.com/FoundryNet). Competition for the EX Series includes Citrix WAN Scalier, F5's Link Controller/WANJet 400, and Packeteer PacketShaper 6500 (www.Processor.com/PKTR).

Compared to other application acceleration devices, the AX Series offers much higher performance, scalability, and programmability at less cost, according to Kwan. The AX also provides all of its features in the standard pricing model so there are no additional costs for other features, unlike many of the current vendors' solutions. And the EX Series is the only appliance that includes instant application

and user identity visibility, plus it has the most comprehensive feature set in this market.

"Other solutions require multiple appliances, often from different vendors, to perform the same functions," says Kwan. "With the EX, the management of all of these functions is consolidated into one consistent management interface and reporting architecture, which simplifies WAN management functions and provides instant user identification."



SNAPSHOT

A10 Networks AX Series & EX Series (AX3200 & EX2100 shown)

AX Series: Starts at \$29,995 for the AX 2100

EX Series: Starts at \$24,995

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Product Releases

Continued from Page 16

■ **Stonesoft** announced a pair of firewall defense appliances, the StoneGate FW-5000 and StoneGate FW-5100, as well as the StoneGate IPS-6000, which is a multi-layer IPS defense system. The StoneGate FW-5000 has a throughput of 4Gbps, and the StoneGate FW-5100 has a throughput of 10Gbps. The firewall appliances are designed for cooperation under unified management and modularity in VPN networks and data centers with thousands of users. The StoneGate IPS-6000 removes malicious packets from network traffic with an in-line sensor and combined in-line sensor/analyizer appliance.

Video

■ **Polycom** released Polycom RMX 2000, a real-time media conferencing platform for delivering and managing multipoint video and unified conferencing services within enterprises and through service provider IP networks. Overall, the platform is designed to address high-performance videoconferencing infrastructures that can support room videoconferencing systems and the deployments of desktop video collaboration; on-demand and instant conferencing; and high-bandwidth, CPU-intensive applications, such as HD video. The platform is built on a scalable Advanced Telecom Computing Architecture foundation and is

optimized for use on IP networks. The RMX 2000 is also an open architecture based on industry standards. Polycom RMX 2000 pricing for modular systems starts at \$53,000.

END NODES

Mobile

■ **Verizon Wireless** and **Palm** announced the availability of the Palm Treo 700wx smartphone running Microsoft's Windows Mobile 5.0 with Direct Push Technology. The Treo 700wx has a QWERTY keyboard, 1.3-megapixel camera, 240- x 240-pixel touchscreen, and support for Bluetooth stereo headsets. It also has 64MB of RAM and an SD expansion slot to add memory cards of up to 2GB. The MSFP (Messaging and Security Feature Pack) is available out of the box with the Treo 700wx and includes Direct Push Technology. MSFP also provides security features such as over-the-air password policy enforcement and remote wipe for lost or stolen devices.

Printer

■ **Océ** introduced the Océ VarioPrint 1055/2075 Document Printers and the Océ VarioPrint 1055 Book Copier. The Océ VarioPrint 1055 DP can consolidate multiple printers into one departmental device and lower overall operating costs. The Océ

VarioPrint 2075 DP can produce 72ppm and is capable of print volumes of up to 400,000 images per month. The Océ VarioPrint 1055 Book Copier is a multifunctional system with a unique, sloping glass platen designed to produce high-quality copies from books and other bound documents without damaging them. The Océ Pocket Mailbox lets users scan from or print to a USB memory stick.

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■ **Ricoh** introduced ELP-EX (Enhanced Locked Print-Extended Edition), designed to protect confidential documents in shared printing environments. ELP-EX builds upon Ricoh's ELP-SE (Enhanced Locked Print-Standard Edition). ELP-EX incorporates FlexRelease capabilities, which enable print jobs stored on one MFP to be accessed and released from another ELP-enabled MFP on the network without external hardware or software. The ELP-EX can hold documents at an MFP until the authorized user releases them. For security purposes, it can also encrypt documents stored at the MFP in case the hard drive is ever stolen. Various Ricoh Aficio products support ELP-EX. Alternatively, it can be installed and configured on an MFP via embedded firmware (SD card) or remotely via Web interface.

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■ **Xerox** announced the entry-level Xerox 495 Continuous Feed Duplex Printer. The

Xerox 495 can simultaneously print both sides of an 18-inch-wide web. A key advantage of this printer is its "non-contact flash fusing" technology. Flash fusing only heats the toner; there is no direct heat or pressure roller contact with the paper, maintaining moisture in the paper and minimizing or eliminating stock shrinkage, paper curl, and static electricity. As a result, the chance of paper jamming during the printing or finishing processes is reduced. The Xerox 495 prints on pin-fed paper, either roll- or box-fed, at 115 feet per minute, and runs 250ipm (images per minute) in simplex mode and 500ipm duplex mode.

Storage

■ Coraid released a new version of its high-capacity SR1521 EtherDrive Storage Appliance. Coraid's ATA over Ethernet device is now available in a free-standing tower version (SR1521T) in addition to the rack-mountable SR1521. Each SR1521T is capable of offering up to 11.25TB of networked storage in its 15 3.5-inch drive bays. Supported operating environments include Mac OS X, Windows, Solaris, and FreeBSD. The SR1521T is available for \$4,495.

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■ EMC introduced several new products aimed at medium-sized businesses and

Go to Page 18

More Energy-Efficient Cooling

APC's New Design Takes Cooling To The Heat Source

by Julie Sartain

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ONE OF THE BIGGEST problems that IT and facility managers at data centers face today is keeping all that equipment cool. The cost is immeasurable as it differs considerably from one system to the next, one data center's physical space to the next, and, of course, between geographic locations. Standard AC just isn't enough anymore.

American Power Conversion has a revolutionary cooling unit specifically designed for today's advanced data centers that takes heat removal to the point of generation—at the IT rack. The product: the InfraStruXure InRow RP. "By removing heat at the source," says Kevin J. Dunlap, director of

business strategy in cooling solutions at APC, "the InRow RC eliminates mixing of hot and cold air streams, which enables a predictable cooling pattern over traditional perimeter and central air-handling systems."

By providing the cooling closer to the heat source, it makes the system more energy-efficient because it doesn't require the tremendous amount of fan power that perimeter systems need to move the air through the data center, notes Dunlap. Because constant fan speeds are not required with these systems, in order to pressurize raised flooring or ductwork, the fans can vary capacity with changing heat loads to save even more energy during light load conditions.

According to Dunlap, target customers include IT and facility managers for data centers and computer room applications. "Specifically, those that require a modular cooling system capable of handling medium to ultra-high density applications," says Dunlap. "The modularity and predictability of the product allows these individuals to plan and quickly deploy the product without extensive engineering and lengthy build-out cycles."

The main competition is Emerson Network Power (www.Processor.com/Emerson-Liebert). The company offers both perimeter cooling units and row-based systems. The benefits of the InRow RC over the competition is the variable fan capacity based on load to save energy, as well as the integrated management that communicates to APC's InfraStruXure Manager seamlessly, notes Dunlap, which can also be accessed directly through a browser.

In addition, Dunlap says, the InRow RC has the only built-in, real-time capacity monitoring system that displays the exact amount of cooling being supplied by the unit and the group of units connected to it. This provides valuable information for capacity planning and change management. And the product family can also be used with APC's Hot Aisle and Rack Air Containment systems for



SNAPSHOT

InfraStruXure InRow RP

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Product Releases

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organizations. The new offerings include the 4Gbps-capable CLARiiON CX3-10 UltraScale networked storage system; RecoverPoint/SE software for network-based asynchronous replication in midtier storage environments; and a suite of Reference Architectures and Assessment Services that can help Microsoft SQL Server 2005, Microsoft Exchange 2003, and Oracle RAC 10g customers consolidate, back up, and secure information.

Workstation

■ **Shuttle** released the Shuttle XPC P2 3700w and Shuttle XPC n-P2 3700w workstations, which have quad-core processors. The P2 has an Intel Xeon X3210, up to 8GB of DDR2-667 ECC memory, up to 2.2TB of storage, Gigabit Ethernet, and Windows Vista Business (32- or 64-bit). It also has an ATI FireGL or Nvidia Quadro graphics processor. The n-P2 includes the same hardware but lacks an operating system. The Shuttle system is Energy Star-compliant and is available at a starting price of \$1,649.

Components

■ **Sun Microsystems** unveiled Sun Multithreaded 10 Gig E Networking Technology, a network interface designed to accelerate multithreaded application performance by optimizing I/O throughput

within parallel thread environments. Sun also introduced the Sun Multithreaded Networking Card, which uses Sun Multithreaded 10 Gig E Networking Technology and features dual 10Gb Ethernet ports. The card can help improve network-intensive applications and services, such as database access and backup, large data warehousing, Web infrastructure, cluster computing, and video streaming. Pricing for the Sun Multithreaded Networking Card starts at \$498 per 10Gb Ethernet port.

SOFTWARE

Database & Data Mining

■ **Lumigent Technologies** has announced the release of its Lumigent Audit DB2 for IBM DB2 data management server. In short, the release makes the company's data-level auditing software now available to IBM DB2 users. This release provides DB2 customers a means for gaining a continuous, sustainable compliance state. The software will also let IBM customers audit DB2 and use DB2 as an enterprise-wide storage facility for Audit DB audit data that's gathered from multiple systems, including DB2, Oracle databases, Sybase ASE, and Microsoft SQL Server. Audit DB also provides policy and monitoring abilities that are related to privacy, data security, and PCI.

Messaging & Groupware

■ **Ontrack PowerControls** now comes in version 4.2. The mailbox recovery software fully supports Microsoft Exchange 2007, Ontrack says, including Exchange's 64-bit architecture. Ontrack PowerControls 4.2 is also compatible with Microsoft Outlook 2007. Pricing starts at \$950 for 100 mailboxes.

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■ **SearchInform Technologies** has announced it is taking its SearchInform MailSniffer RC software in a new information security direction. The software aims to intercept email traffic on the network protocol level, index messages, and let users conduct searches through the index. MailSniffer, which works with various email clients, also has access to a given computer's sent and received messages and SearchInform search technology. Additionally, the software lets users do full-text searches throughout the incoming and outgoing correspondence process and not just in the body of a message. Further, even if a message is deleted from an inbox, the contents remain available for search.

Mobility

■ **Aruba Networks** announced an enhanced version of its mobility networks software, including ArubaOS 3.1 and

Mobility Management System 2.0. New features of the software include virtual mobile networks, management contexts, bandwidth control, voice management, and security services integration. Existing customers can upgrade for free. New customers can purchase a license for Mobility Management System 2.0 for \$3,995.

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■ **Idokorro Mobile** released the latest version of its professional file management application for BlackBerry handsets: Mobile File Manager, which is part of a suite of mobile applications from Idokorro. The suite also includes Mobile Admin 2.5 (an application that lets users manage remote files), Mobile SSH, and Mobile Desktop. Mobile File Manager lets BlackBerry users edit Web configuration files, monitor log files, upload photos to Web sites, transfer files, or view images on remote computers. It supports Windows File Sharing, WebDAV, SFTP, and FTP.

Network & Systems Management

■ **Active Reasoning** has released System 5, the latest version of its policy enforcement software that's aimed at organizations needing enforcement of IT policies to save revenue losses and costs associated with outages and downtime. System 5 lets businesses embed policy controls in system and

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WildPackets Adds New Hardware & Vista Capabilities

OmniAnalysis Platform 4.1 Covers Monitoring & Analysis Needs

by Paul Ferrill

• • •

TROUBLESHOOTING NETWORK PROBLEMS requires a good set of tools to help pinpoint the problem. WildPackets OmniAnalysis Platform offers a broad range of offerings to make the job easier. Expert mode diagnosis makes identifying issues with specific types of traffic such as VoIP a simple task.

Analyzing network traffic on an application level helps identify specific bottlenecks and visually shows response times to different user actions. Omni Expert collects network traffic into conversations while OmniPeek aggregates the conversations by application for detailed analysis.

The Visual Expert provides a wide range of tools to perform the detailed analysis. Administrators can view data graphically and in a summary form to help determine the root cause of a problem. Visual Expert also makes it possible to do "what if" analysis to determine the effects of changes in different network conditions on a specific application.

With the 4.1 release of the OmniAnalysis Platform, WildPackets has now added support for Intel Centrino 3945ABG, opening up the product to a large number of commonly available hardware. It has also added the ability to decode 802.11n management frames,

allowing users to view the capabilities of all access points on the network providing 802.11n support.

"We switched from a competitor's product over to WildPackets for several reasons. Cost was certainly one, but the biggest reason was the flexibility and user-friendly interface that we found with the OmniAnalysis product," says Rick Verano, a network specialist with Verizon Communications (www.verizon.com).

The OmniAnalysis Platform covers a group of products that can be combined and configured to meet the specific needs of the customer. While some small to midsized enterprise customers might need only the OmniPeek analyzer tool, others would benefit from a range of products, including the Omnippliance hardware appliance.

WildPackets provides solutions that scale from small networks to distributed enterprise environments. Starting with a small deployment helps familiarize operators with the user interface and provides experience that will easily transfer to larger installations. □

SNAPSHOT

WildPackets OmniAnalysis Platform 4.1

OmniPeek WorkGroup: Starts at \$995

OmniPeek WorkGroup Pro: Starts at \$2,495

OmniPeek Enterprise: Starts at \$6,995

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Security Options Abound

Breach Laws

Rising Security Threats Require Tougher Notification Laws, But At What Price?

By John Brandon

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Product Releases

Continued from Page 18

applications so that real-time change detection and auditing configuration can take place. Overall, the software aims to eliminate reliance on point solutions and manual processes of enforcing policies. Among System 5's features are PMDB (Policy Mapping Database), continuous change detection, SNMP event monitoring, and an Enterprise Risk Dashboard.

Operating System

■ **HP** has announced the latest version of its HP-UX 11i OS, as well as new HP Integrity servers. HP-UX 11i v3 is a Unix-based OS that is virtualization-friendly. It also makes it simple to oversee and secure data warehousing operations. In addition to HP-UX 11i v3, HP has also announced the Integrity rx2660 rack-optimized entry-level server and the HP Integrity BL860c Server Blade for HP's BladeSystem c-Class portfolio. HP-UX 11i includes the HP VSE (Virtual Server Environment) and support for up to 100 million zettabytes of storage.

The BL860c starts at \$3,827 and the rx2660 at \$4,931.

Security

■ **F5** says that a new version of its FirePass Controller SSL VPN software features support for Windows Vista. In addition, the software is now integrated with the company's BIG-IP Global Traffic Management product. F5 also announced its new FirePass 4300 hardware platform for enterprise SSL VPN deployments for up to 2,000 concurrent users per device.

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■ **Watchfire** announced AppScan Enterprise 5 to provide Web-based application security software for security professionals. Version 5 includes a point-and-shoot testing tool, called QuickScan, which allows developers to test the security of an application. QuickScan then presents the results in a Developer Task List format that displays what needs to be fixed. AppScan Enterprise 5 also includes a Computer-Based Training feature to accelerate the

adoption of security testing by QA and development teams. Computer-Based Training educates nonsecurity professionals on application security fundamentals and product best practices.

Storage

■ Swiss company **NovaStor** has announced that version 6.8 of its NovaNet-WEB online backup software supports Windows Vista. Enterprises and service providers can use NovaNet-WEB v6.8 to perform secure, encrypted backups to a data center over the Internet. NovaNet-WEB 6.7 licensees can upgrade for free, and there's a trial version available for download.

SERVICES

Security

■ **Sun Microsystems** released three new Identity Management Professional Services to help improve the time customers spend on identity management projects. The Sun Human Resources Syncro-

nization Service helps link key information, such as usernames and passwords, to resources that users need to access for their jobs. The Sun Role Management Service utilizes the Sun HR Synchronization Service or another authoritative source to address provisioning and compliance scenarios centered on roles-based access control. The Sun Password Management Service helps build an automated password management framework to reduce administrative and operating costs associated with the processing and management of passwords.

The new Voltage Security Network is a managed email security service for individuals on up to SMEs and side projects at the enterprise level. It makes email privacy transparent to the user, as the host manages all aspects of the identity-based encryption. Customers can continue to use their own inboxes without having to install special client software. Pricing starts at \$8 per month with a 30-day free trial.

Dolphin 7600: Tiny But Mighty

Reliable & Affordable Full-Featured Terminal

by Sixto Ortiz Jr.

THOSE NEEDING COMPUTING POWER in a small form factor should take a close look at Hand Held Products' Dolphin 7600, a mobile computer designed for light industrial applications.

The tale of the tape for the Dolphin 7600 starts with its ergonomically designed form factor, featuring an integrated finger saddle that makes it easy and comfortable to operate the device with one hand. Other ergonomic features include an angled barcode scanner for effectively scanning barcodes while minimizing hand and wrist movement and a weight distribution that optimally balances the Dolphin on the user's hand. These features make the Dolphin a shoo-in for light industrial applications such as parcel delivery, retail, and healthcare.

A mobile computer needs plenty of wireless connectivity options to get work done on-the-go. The Dolphin 7600 features 802.11b/g Wi-Fi and Bluetooth (Class 2, version 1.2) wireless capabilities, so both medium- and short-range connectivity work requirements are met. WLAN security options include WEP, 802.1x, LEAP, TKIP, MD5, EAP-TLS, and WPA-PSK. Wireless communications are notorious battery drainers, but the Dolphin's full-shift power management ensures users can get uninterrupted work done for an entire shift.

Battery options include a standard configuration featuring a 3.7V/2200 mAh Li-Ion battery or an optional configuration featuring a 3.7V/3240 mAh Li-Ion battery. The Dolphin 7600 features Adaptus Imaging Technology 5.0, which reads both linear and 2D barcodes and captures digital images. A Samsung 2440 400MHz CPU, along with 64MB RAM and 128MB of flash memory, power the Dolphin 7600. Users requiring more horsepower can

choose an optional configuration featuring 128MB of RAM (the flash memory is still 128MB in this optional configuration). The Dolphin 7600 also features a memory expansion slot for SD or MMC flash memory cards, so the user can add storage as the application demands.

The Dolphin 7600's software application environment begins with Microsoft Windows CE 5.0 and also features a C/C++, C#, and Visual Basic development environment for Windows CE 5.0, for those customers who need to code their own customized applications. Other supported applications include PowerNet Terminal Emulation (TNVT, 3270, 5250), Hand Held Products MSM, and ITScriptNet.

Competing products include Symbol Technologies' (now acquired by Motorola; www.Processor.com/SymbolTechnologies) MC1000, MC3000, and MC9000 series of mobile computers and Psion Teklogix's (www.psionteklogix.com) 7535 and 7530 handheld computers. □



SNAPSHOT

Hand Held Products Dolphin 7600

An ergonomically designed mobile computer designed for light industrial work

www.handheld.com

Network Support & Analysis Tools

NetScanTools Pro USB Offers Portability & Consistency

by Cynthia Lazzaro

MOST NETWORK ADMINS have a set of tools they use every day to check the health of their network or individual servers. Many of these tools have been collected over years, and many have become very sophisticated; however, the one thing that may be missing is consistency and portability.

Of course, you can burn your tools to CD or USB key so you can bring them with you. However, after that, the tool you need has to be installed and configured and is hopefully supported on the new system. To help make life easier for those who need

portable, reliable, and integrated tools, Northwest Performance Software has released NetScanTools Pro version 10.43 on a portable USB key or on CD. The software on the USB key requires no installation and stores all files on the key so there's no footprint or revealing data saved on any local systems.

NetScanTools Pro's primary function is as an integrated network discovery and information-gathering tool. It is useful for not only network administrators but also security specialists, contractors specializing in network support, and anyone who travels and needs to quickly assess and understand how a network is organized and set up.

NetScan Pro automates the gathering of information about internal and external users, the type of devices connected to the network and what ports are open, and even the IP addresses in use. It has multiple built-in applications and solutions, including DNS Zone transfer analysis, IP to MAC address resolution, NetBIOS share detection, port capture and viewing, switch port mapping, and open SMTP relays.

For the security-conscious, NetScanTools Pro can perform an ARP Scan revealing any IPv4 devices connected to the network even if they are protected from being pinged by an integrated firewall. Another valuable security tool is Cache Forensics. This tool shows Internet Explorer history, cache, and cookie information. It also reveals Protected Storage information containing passwords and IE

auto-complete data for any currently logged-in user. Finally, the reporting feature allows an analyst to create reports as a Web file or as a file that can be exported into virtually any spreadsheet.

There are several integrated toolkit products that compete with NetScan. One is OstroSoft (www.ostrosoft.com), which provides a variety of tools to monitor Web-based activity, email, and network analysis tools. Another is from Paessler (www.paessler.com), which has a suite of tools including IPCheck Server Monitor, SNMP Helper, and Webserver Stress Tool. Although these tools currently lack the convenience of being preinstalled together on a USB key, they do provide similar functionality when combined. □

SNAPSHOT

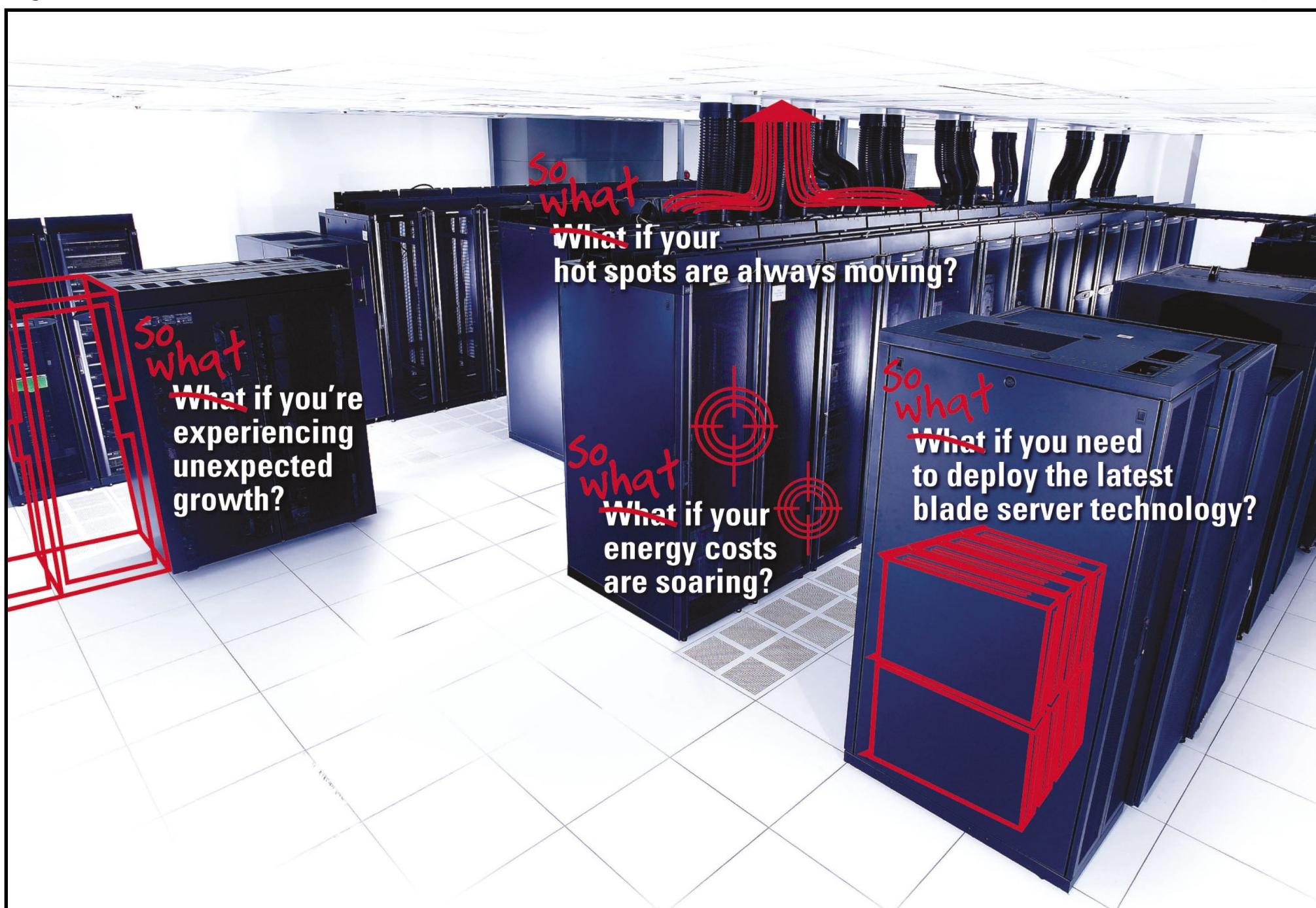
NW Performance Software NetScanTools Pro USB

CD version: \$249

USB version on a 1GB flash drive: \$349

Network analysis and security tools integrated onto a USB key that requires no installation on a host system and stores reports and other collected data on the key

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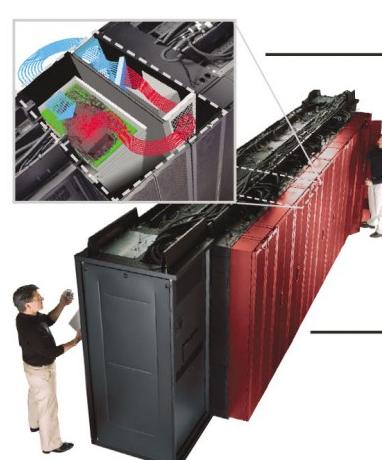
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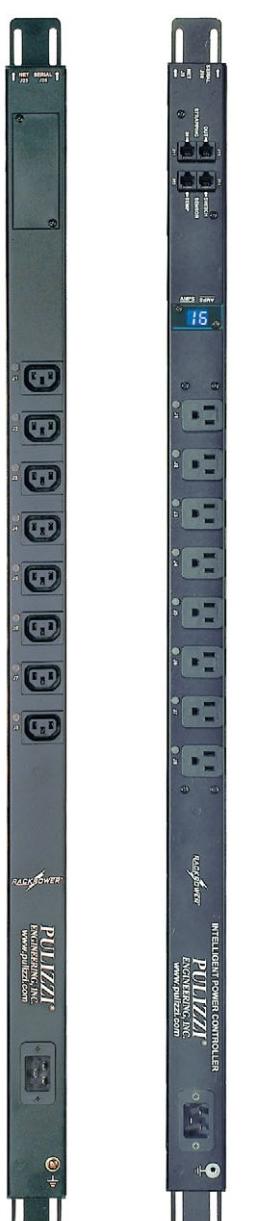
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BOOK REVIEW

Diving Into Mass Collaboration

“Wikinomics” Examines How This Trend Is Shaking Things Up

by Elizabeth Millard

As YouTube GETS BIGGER, Apple trots out phones and music players, and MySpace threatens to make every homework assignment late, books about the changing digital landscape abound.

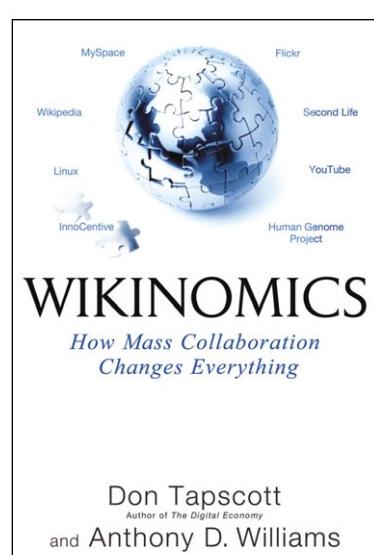
One that's worth tweezing out from the stack is “Wikinomics: How Mass Collaboration Changes Everything,” a treatise on mass collaboration that provides a high-level view of how collaborative technologies are affecting business and how those shifts could fundamentally change how work gets done and how organizations are structured.

Structural Transformation

Corporations have traditionally been structured according to a hierarchical line of authority, write author Don Tapscott, chief executive of New Paradigm, a think tank and strategy consultancy, and co-author Anthony Williams, research director at the firm. Hierarchies aren't vanishing, they conclude, but the way that people are using blogs, wikis, and chat rooms are transforming what people expect in the workplace.

Smart companies, the authors believe, are encouraging this crossover of collaboration into the enterprise environment rather than sticking to the old models. Going beyond just project management, “wikinomics” is a strategy that encourages mass collaboration—bringing together employees, competitors, industry analysts, and other participants to take on big projects, do research, and share knowledge.

To apply the principles of wikinomics, Tapscott quotes knowledge management theorist David Snowden, who thinks effective leaders should handle chaos the way a kindergarten teacher manages students—by applying a degree of freedom at the start of a session and then intervening to create desirable patterns of behavior.



Wikinomics: How Mass Collaboration Changes Everything

Authors: Don Tapscott and Anthony D. Williams
Publisher: Portfolio/Penguin Group
Price: \$25.95
Format: Hardcover, 324 pages

“In a similar way, your planning must allow for a high degree of learning on your part and the flexibility to respond to new opportunities that arise of the interplay among participants in your business web,” Tapscott writes. Important steps in creating a collaborative environment include taking cues from lead users, who can generate enthusiasm around community building, and supplying an infrastructure for collaboration that extends beyond just technology.

Also vital is to see collaboration as a long-term plan, and ongoing project, that involves more than employees. Tapscott says the SNP Consortium, a science partnership,

took over a year to create a model of collaborative R&D. Participants haggled over a legal framework, but they ended up with a shared set of computing resources and developed a much more powerful organization.

Key Concepts

Opening up intellectual property in one area of your business could boost demand for complementary product and services offerings, much as IBM (www.ibm.com) found with its WebSphere product.

The advantages of pooling competencies and reducing R&D costs exceed the benefits of having exclusive rights to the knowledge produced.

An open platform will encourage innovation, efficiency, and interoperability with ecosystem partners, as Amazon.com displayed with its numerous partnerships.

Sharing is necessary to establish credentials and develop relationships within a digital community.

Openness removes unnecessary friction in collaborative projects and paves the way for the participants to be more creative and focused.

Reaching Outside Company Walls

In the business realm, it might seem counterintuitive to work on projects with competitors, but boosting collaboration with apparent rivals can elevate an entire industry, Tapscott believes. Growth and innovation are no longer confined within one company's walls, he notes, but can be spurred by multiple partnerships with abundant communication.

“Winning companies today have open and porous boundaries and compete by reaching outside their walls to harness external knowledge, resources, and capabilities,” writes Tapscott. “[T]he monolithic, self-contained, inwardly focused corporation is dying.” □

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Spreading Data Apart & Bringing It Together

How can you get a storage system that gives a path to significant performance as well as storage capacity increases that can be scaled up from a cost-effective initial system purchase? This is often the easiest path for a storage admin to begin creation of a storage system with the capability to grow.

Distributed file systems and clustered storage give the means to create such scalable storage systems. These sorts of storage systems have been widely used in high-performance computing for several years, where they provide mass storage to support intense scientific simulations of weather and other complex phenomena. In the past few years, a new generation of storage systems has emerged that bring these powerful approaches within the budget and management capabilities of smaller organizations.

Distributed File/Clustered Computing

The main idea behind distributed file systems is to create a storage system that manages the file structure between the storage elements or nodes rather than using a single storage management device to manage the file structure of storage elements attached to it. Having a non-centralized file manager uses multiple data paths to avoid the bottlenecks a single file manager creates. In theory, a distributed file system can be expanded indefinitely as more storage/management nodes are

added to the system. A distributed file system involves software that operates between the nodes to coordinate file management.

Clustered storage is an analogy to clustered computing where computers are attached together to allow the microprocessors in the computers to share the tasks of a compute-intensive calculation or simulation. Clustered storage systems combine digital storage and computer control functions for the purpose of managing storage operations. Clustered storage allows connecting a number of storage devices together to share the tasks of storing and protecting information. A distributed file system is a natural approach to organizing data as a unified namespace in a clustered storage environment.

Options On The Market

There are now a few companies offering distributed file systems and clustered storage systems. Among these companies are Isilon,

Panasas, Omneon, Blue Arc, and 3PAR. Each has its own unique path to clustered storage and distributed file systems. Isilon has storage products that use clustered storage for different levels of storage system. Its high-end products combine separate modules for storage and compute/caching (performance) modules that help speed the overall performance of the storage system. The overall performance of the storage system increases with increasing numbers of storage and/or performance modules.

The Panasas Linux-based ActiveScale Storage Cluster provides a scalable parallel file system with an object-based storage architecture to avoid issues associated with traditional file systems. This blade-based storage and computing environment comprises storage and director blades to create a scalable storage system that increases in performance as the size of the system increases.

The Omneon MediaGrid distributed file system is composed of Content-Directors and Content-Servers and sells into a media and entertainment market for rapid playback applications. The ContentServers, available in 2TB "high-bandwidth" and 12TB "high-capacity" configurations, are storage servers that provide storage capacity, high-bandwidth network access, and processing power.

Blue Arc created a hardware-based packet processing chip in its Titan Silicon Server

that scales to 40GBps throughput and is also used in media and entertainment applications. Titan employs four physical modules that are inserted into the rear of the Titan chassis. These are the Network Interface Module, two File System Modules, and the Storage Interface Module. The Blue Arc storage system can mix SATA and high-performance Fibre Channel disk drives to create a tiered storage system in a single storage rack.

The 3PAR InServ S800 uses a high-speed, full-mesh, passive-system backplane, which can carry data among controller nodes at a 1GBps performance rate. The InServ S800 can scale up to support 378.4TB of raw capacity and house eight controller nodes in a single system. The 3PAR software divides physical disk drives into pools of 256MB parcels. When a logical drive is created, the InServ Storage Server applies RAID functionality across dispersed parcels spread over several disks and controllers to take advantage of the architecture's parallelism.

Advantages To Clustered Storage

Clustered storage offers advantages vs. traditional storage systems. By providing better performance from a storage system, fewer of these systems are needed to support an IT environment and thus require a smaller footprint and lighter heat load. Heat loads and power usage are becoming major issues in placement of data centers, and a big portion of the cost and most of the waste heat is generated by disk-based storage systems.

With more efficient use of disk storage, the amount of storage required can be better controlled and thus reduce the heat load. □

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TOM COUGHLIN

AUTHOR

Tom Coughlin is the author of numerous authoritative reports on digital storage and its applications. He is also the founder and organizer of the annual Storage Visions Conference (www.storagevisions.com) and lead consultant for Coughlin Associates, which provides digital storage technical and market analysis and consulting services. Coughlin is a frequent writer and international speaker on digital storage and storage applications. You can find out more about him at www.tomcoughlin.com.



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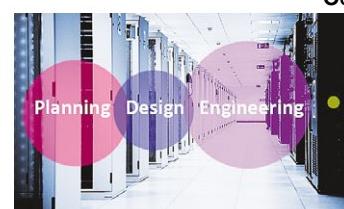
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Leveraging Decades Or Millennia Of Experience

My spouse and I just got back from a week-long cruise in the western Caribbean; now that I'm back home (and back in the office), I can get some rest. On the ship I had a number of interesting conversations with the people who toured and dined with us. Many were about my age and had worked in their respective industries for over 30 years (as I have). It's funny how we have seen many of the same issues over the years while working in entirely different parts of the economy; companies all over the world insist on making the same mistakes we did. We agreed that in too many companies, the wisdom and experience of experienced and battle-hardened employees is being ignored as the young (cheaper) lions come up in the ranks. I don't need to remind you that those who do not learn from history are doomed to relive it.

Getting Registered—Almost

As a case in point, the tour industry could learn a bit from a few of the highly experienced process and systems engineers that it ferries from one tourist stop to the next. While the accommodations on the Royal Caribbean Explorer of the Seas were very nice, getting to the ship and back home sucks

much of the fun out of the trip. Initially, we found the Web sites used to reserve a sailing date are really well done, with one fairly serious problem, which we discovered very late in the final registration process.

We thought we had done pretty well working through the registration process until the instant after we pressed OK on the final commit Web page. Somehow we had signed up for the wrong date. While the cruise line (Princess) was kind enough to let us back out of the deal and stand by for the right cruise, I think (in retrospect) the site could have included the actual sailing date and destination as a header on each page to give us a better chance to choose the right cruise.

Abrogating Customer Support To Others

We eventually got signed up for a Royal Caribbean cruise and somehow found a set of hotel rooms before and afterward—on what turned out to be Super Bowl Sunday. We arrived at the pier at the correct time only to find utter chaos. Our shuttle dumped us

into a crowd of people trying to figure out where to go and what to do with their (considerable) luggage. It would have been nice to have a lot more signage and a lot more detailed instructions as to what, when, where, and how we were to check in. This is what systems engineers do. You would have thought that these companies who have been providing boat trips since the year 3000 B.C. would have learned how to organize getting



WILLIAM (BILL) VAUGHN

AUTHOR William (Bill) Vaughn is an industry-recognized author, mentor, trainer, and subject-matter expert on Visual Studio, SQL Server, and ADO.NET. He's worked in the computer industry for over 30 years, including 14 years at Microsoft. He's written seven editions of the "Hitchhiker's Guide to Visual Basic and SQL Server" and three editions of "ADO.NET and ADO Examples and Best Practices." Vaughn and Peter Blackburn also wrote the best-selling "Hitchhiker's Guide to SQL Server 2000 Reporting Services." Visit his Web site at www.betav.com.

because they use third-party companies to deal with all shore activities and have only a modicum of control over the way passengers are treated onshore.

When we finally left the ship in Miami, we found it nearly impossible to get to a downtown address about two miles away as one taxi after another refused; they all wanted to go to the airport. Again, the cruise line had no representative there to organize the taxi queue or ensure the cabbies were obeying the law.

Sadly, our problems caused by outsourcing did not end there. On the way home, United Airlines cancelled two of our flights because of maintenance problems, a problem we were told was exacerbated by outsourced maintenance crews. It seems the airline mechanics no longer have to be FAA certified; they only need a certified mechanic to sign off on the work. It's kind of like getting a heart operation performed by a trainee who only needs to have a doctor sign off on the procedure—assuming you live.

Having the best-working registration system or the nicest accommodations in the world does not do much good if the product you're selling falls short of providing an enjoyable experience just because you abrogated customer satisfaction or safety to an outsourced company that does not share your consumer ethic. □

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The same problems were replayed to different Bob Marley music.

people and cargo on the ship without so much confusion.

Each time we departed the ship, the same problems were replayed to different Bob Marley music. Once on the piers, outsourced tour companies took the influx of tourists and made an inept attempt to get us into buses, boats, submarines, and tourist-trap shops and back to the boat before it sailed. In some cases we were abandoned for an hour or so or missed our tour completely because of disorganization on the piers; the cruise company people were nowhere to be found. Apparently, that's

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ALTHOUGH MOST enterprises are now adapters of network doesn't mean that they have to be. Some bigger counterpart firms are still in the game and have robust storage.

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Deploying CRM

The Ins & Outs Of Using CRM In The SME

by John Brandon

• • •

IN TOLKIEN'S WORLD, there was one ring to rule them all. With CRM, the strategy is similar: one central repository for all customer information. This can often include sales and marketing "touch points" to track all contacts with customers—both existing and potential—but it can quickly escalate into a system that manages customer information from the first handshake down to the most granular financial information. Deploying a system that comprehensive is challenging for organizations of any size, to say the least, but small to medium-sized enterprises must plan their own strategy.

Interestingly, the immediate challenge in deployment is the mobile consideration. A large enterprise is often a mix of sales,

marketing, accounting, and other departments, but a smaller company has a higher percentage of salespeople. According to AMI Partners (www.ami-partners.com) Vice President for SMB Insights and Business Solutions Laurie McCabe, it's not necessarily the number of employees but the requirements of the primary user that often determine the success of a CRM deployment. Deployment must address all access points, including those from PDA, from cell phone, from home computers, over wireless, and through a secure connection from anywhere.

"In a sales-driven organization, there are more users constantly going into and out of the system, with people running all over the place, and using VPN, so network performance for remote access is critical," says McCabe. "It's also important to deploy a CRM product that is good at sales force automation and connecting from anywhere, not just the office."

Web-Based CRM: Easier Deployment?

Service providers such as Sage CRM Solutions (www.sagecrmsolutions.com), Salesforce.com, NetSuite (www.netsuite.com), and RightNow (www.rightnow.com) are easier to deploy because they are hosted solutions. An interesting debate, though, is how much these external, Web-based, on-demand offerings still require infrastructure changes.

Sage CRM, for example, only requires one URL sent to employees, and they can access the software from a BlackBerry, laptop, SMS, or other

devices. However, the ancillary issue is how to support these hardware devices, especially in light of the fact that the secure connections are not to a corporate server but to an outside source. In addition, hosted CRM provides less flexibility in integration with key services within a smaller company, which might require a custom-developed CRM product to handle any issues not covered by the Web-based application. Sage CRM provides good back-office integration and connections for legacy systems, unlike some of the more entry-level CRM options.

"Many CRM users expect to be doing business out of the office," says Chris Reich, a product director at Sage CRM Solutions (www.sagecrmsolutions.com). "From smartphones and PDAs to a Web connection over Wi-Fi in an airport, the issues surrounding extension of the network to public access points is increasing. Granting this type of freedom to access data while remaining secure is a huge concern among users. As an example, being able to access customer data on a BlackBerry and then wipe the data should the device be lost or stolen is a critical function that CRM must enable and the network must support."

Maintenance & Support

McCabe notes an equally important criteria for a successful deployment: ongoing maintenance. Some CRM deployments fail because the provider does an excellent job with the initial installation, but the company itself does not plan for the related server maintenance, database integration, strain on file and print servers, and bandwidth requirements for a system that is suddenly the heart and soul of the organization. Smaller companies often have IT administrators who are already overtaxed with maintenance.

McCabe says the first question to ask is: Can the current infrastructure support CRM, or is there a related server and

database overhaul that must come first? Other serious considerations for non-enterprise customers involve service and support. Too often, a CRM vendor will claim excellent integration and support with existing services for years to come and even spell out that integration in a contract. But it's critical to find out the costs for ongoing service and find out if the vendor has pre-made templates and modules or whether they will require custom programming for your environment.

Usability, Training

Deployment in a company of any size will certainly have a ripple effect as users become accustomed to the new system and network admins adjust server loads and network bandwidth to meet the new demand. In some ways those challenges are more predictable because they match the strain for any major application deployment. Sam Gragg, a Teradata (www.teradata.com) vice president, says deployments in smaller companies hinge on a successful training and support plan, especially during the transitory stage.

"You need to get people in many organizations to change and perhaps introduce new incentives, plus you need an infrastructure that can support this transition," says Gragg. "I think this boils down to active data management, and not just a tool."

McCabe suggests picking two or three users who are not technical and even those who do not normally adapt well to a new software deployment, perhaps because they already have a set of tools they rely on, and see how they react to at least two

Go to Page 28

The immediate challenge in CRM deployment is the mobile consideration.

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E-discovery & The Data Center

Eventually, It's Bound To Be Part Of Your Job

by David Garrett

WITH THE POTENTIAL EXCEPTION of lawyers, no one likes lawsuits. Legal fees and costly verdicts are only half the problem; EDD (electronic data discovery) is the rest. Even in small lawsuits, EDD can be a six-figure bill. No wonder, then, that words such as "headache" and "nightmare" are used to describe it.

Consider the mind-bending range of data that EDD can encompass: Word, Excel, PowerPoint, emails, IMs, CRM, and ERP apps and even a department-level Access database. Every PDF, Web site, intranet, and extranet may need to be searched. And don't forget about wikis and blogs, internal and external alike. If you've deployed unified messaging, even voicemails could be subject to search.

Nor is that data in one place. To complete an EDD request, you may have to rummage through file servers, email servers, SANs, mirrors, archives, and backup tapes (whose stubbornness is legendary), not to mention hundreds or even thousands of endpoint hard drives. Do you use an ASP? A colocation vendor? Better give them a call, too.

Problems & Workflow

What's more, searching through gigabytes—even terabytes—of raw, unfiltered data is not without its technical problems. Hard drives crash. Tapes get brittle, chip, and break. Merely reviewing a document can change its metadata (that is, data about the

document itself, including its author, timestamp, location, last accessed date, and so forth). Metadata, which is vital to building an audit trail of who saw what and when, is often just as important as documents themselves.

Given all its complexity, it's no surprise that EDD is a field in search of a standard. Enter the EDRM (Electronic Discovery Reference Model), a proposed standard that breaks the EDD workflow into nine steps, each of which involves the IT group in one way or another. Steps include everything from identification, where lawyers and IT staff work together to determine the size of the potential document pool; to processing, where software culls through documents to look for keywords, concepts, authors, and dates (to determine potential relevance); to review, where lawyers vet each returned document by hand to determine its true relevance.

The data center is the vital link between the legal team and the data it needs, tasked with restoring backups, installing sleek search tools, or simply ensuring that lawyers have the right version of Acrobat on their computers. And when problems creep up, IT experts are often called to the witness stand, explaining the nature of the problem in open court when parties tussle over failures to produce information.

Go It Alone?

Rare is the firm that tackles EDD by itself. Most look for help from outside experts. EDD is part of a mushrooming field known broadly as "litigation support," in which companies such as Merrill (www.merrillcorp.com) and Doar (www.doar.com) rank among the largest providers.

Software of mind-bending complexity can also speed the process. Among the best-known products are tools from Engenium (www.engenium.com), Stratify (www.stratify.com), and Attenex (www.attnex.com). Attenex, for instance, makes the Patterns 4.0 suite that can search documents for key concepts and then build document maps that cluster like documents together. The result? The lawyer's job of vetting, reviewing, keeping, and discarding data goes faster. And because lawyers bill by the hour, finding ways to speed their work can mean a six-figure difference in a lawsuit's cost. "The biggest piece of that cost is the attorney review time," says Mike Kinnaman, vice president of marketing at Attenex.

Kinnaman also notes that companies need a way to repeat their EDD process with precision because lawsuits are all too common in this ultra-litigious age. For that reason Attenex offers software with built-in project management, chain of custody, and reporting features, as do some of its competitors.

Changing Rules

Overwhelmed? On their first exposure to EDD, IT managers often are. But last year on Dec. 1 a change to the Federal Rules of Civil Procedure offered hope for everyone from tech mavens to legal eagles and even the court system itself, all of which struggle under the weight, delay, and expense of e-discovery.

For a detailed review of the new rules, ask a lawyer or qualified expert. But in brief, take heart from the fact that parties can no longer be compelled to produce data that's not "reasonably accessible." The precise meaning of that term has not been defined, of course, and

plaintiffs may have a much different view of "reasonable" than you do. But the rules also include protection for companies that fail to produce data because of routine hardware and software errors, as opposed to bad faith.

EDD is a headache—a costly one—and it could be part of your data center's future. **P**

Key Terms

Here are a few key terms from the world of electronic data discovery.

Bates Numbers: A common method of indexing documents

Chain of custody: The path a document takes from the time of its creation

Deduplication/deduping: Removing (or simply noting) duplicate documents prior to release

ESI: Electronically Stored Information; a term used in the Federal Rules of Civil Procedure

Fuzzy search: Search methods that can identify similar documents without an exact keyword match

Harvesting: A synonym for data retrieval

Metadata: Data about a document, including its author, origin, location, history, and so on

Native Format: A document's initial format (such as Word or PowerPoint) prior to conversion to a second format (such as PDF or TIFF) for review

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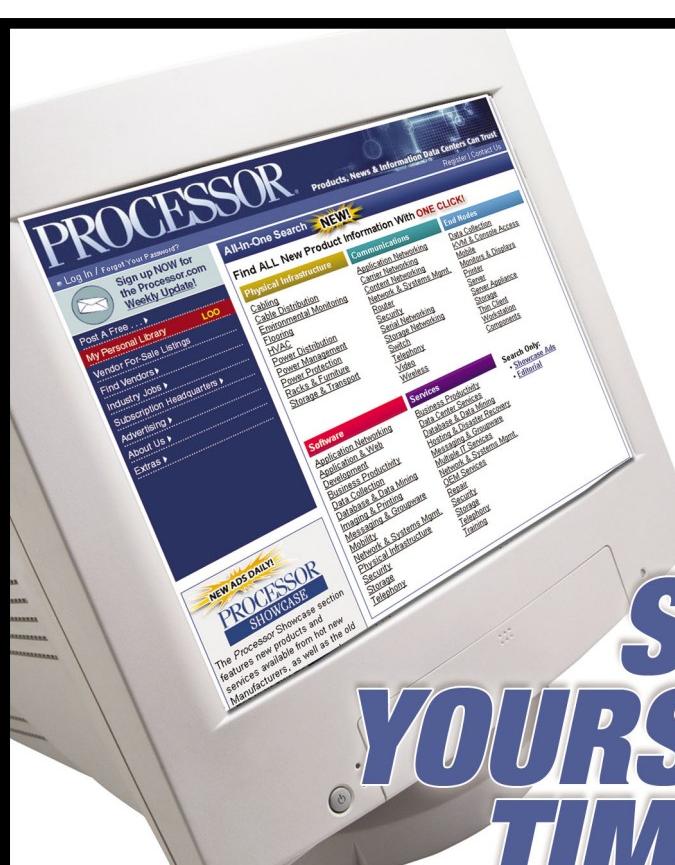
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SSL Certificate Vendors & Features

Options Abound, But Which Is Right For Your SME?

by Kurt Marko

THE SECURE SOCKETS LAYER—and the public key certificates integral to its design—has been a major ingredient in the Web's growth as a vehicle for commercial transactions, yet the effectiveness of certificates hinges on the trust both end users and legitimate businesses place in those who issue them. Just as banks won't accept a homemade business card as a substitute for a valid driver's license as proof of identification before cashing checks, end users need to trust that a certificate presented by a Web site has been issued, and the information validated, by a reputable CA (certificate authority).

In practice, the reputability of a CA—and the inherent trust of users—is established if it is configured into the browser with its own root certificate. Any business running an SSL site needs a certificate issued by one of these widely recognized authorities—specifically one of the 20 or so whose root certificates are shipped with the most popular browsers. But are there solid reasons for choosing one CA over another when getting a certificate?

Vendors & Market Share

Although the certificate authority market is quite diverse—with the Open Directory Project identifying 22 third parties offering the service and more than 20 root certificates bundled into Internet Explorer and Firefox—it is dominated by a few major firms. According to a June 2005 survey from Netcraft (www.netcraft.com) and similar January 2007 tallies from Security Space (www.securityspace.com), the largest vendors are: VeriSign plus its

Thawte subsidiary (www.verisign.com), Equifax via its GeoTrust subsidiary (www.equifax.com), Comodo (www.comodo.com), GoDaddy/Starfield (www.godaddy.com), Entrust.net (www.entrust.net), and DigiCert (www.digicert.com). Together these six have in the range of 75 to 95% of the market, depending on the measurement methodology.

Features & Options

Given the industry-standard nature of SSL, there is no functional difference between certificates issued by these recognized CAs. Vendors do establish product distinctions through a variety of added features and in the level of company validation. Low-cost, entry-level certificates provide so-called "domain-only" validation that merely authenticates that a company has the right to use a particular domain name, while more stringent "company" validation verifies the existence and identity of the underlying business. The highest level of validation, "extended" (or EV; see the "Extended Validation SSL Certs" sidebar), typically requires a letter from a company officer and more extensive checks on the legitimacy of the business.

The standard SSL certificate for securing a Web site uses 128- or 256-bit encryption and is a convenient benchmark for vendor price comparisons; however, very old browsers or mobile devices may only support 40-bit keys. DigiCert also offers a so-called "scalable" SSL certificate that can automatically support this weaker level of encryption from a single certificate. Another genus of certificate offered by most vendors is "wildcard" certificates that can

secure an entire range of first-level sub-domains—for example, store.yourdomain.com and finance.yourdomain.com.

Vendors also seek product differentiation via the provision of site seals—essentially an embedded, hot-linked icon that refers

Extended Validation SSL Certs

The vetting required of a Web site operator to obtain a traditional SSL certificate can vary widely. Some certificates, even from the major CAs (certificate authorities), only validate the authenticity of the underlying domain—that is, that the applicant owns the domain name. Browsers do not prominently distinguish the degree of validation a certificate has undergone; they display the familiar padlock icon whenever accessing any SSL-encrypted site with a certificate issued from a CA whose root certificate is configured in the browser. More details about the certificate are available by double-clicking the padlock icon, but most users don't bother or wouldn't know what to look for anyway.

According to the CA/Browser Forum, EV (Extended Validation) certificates address the problem of lax vetting by requiring much stricter requirements for issuance, specifically that the issuing CA comply with a number of standards:

- The CA must pass an independent audit by WebTrust or an equivalent service verifying that it follows the EV standards.
- The CA must verify the existence and identity of the Web site owner, including its legal existence, physical address, and operational presence.
- The CA must verify that the Web site is the registered holder and has exclusive control of the domain name.

back to the CA's server and provides real-time verification of site authenticity in a more eye-catching manner than a browser's padlock icon. Another option available from most CAs is a warranty that protects customers of the secured Web site from financial loss due to fraud by an improperly issued or validated certificate.

As with most services, competition has proven beneficial for Web site operators, with the abundance of vendors pushing costs for business-class certificates down. Given their potential abuse by phishers and scam artists, businesses should avoid using the bargain-basement, domain-only products, while those wishing to provide the highest level of security to their users should consider the new EV certificates. □

Additionally, the CA/Browser Forum expects browser vendors to provide support for EV certificates by displaying a visual cue (such as turning the address bar green) and prominently showing more detailed information about the Web site in a status bar. IE7 is the first browser to offer EV support.

EV certificates are just now becoming available from most major CAs and are significantly more expensive than even business-class, high-assurance certificates. Given the more extensive validation procedures required, there is also likely to be a significant backlog in issuing EV certificates for the next few months.

Unfortunately, EV certificates aren't a panacea. Despite the elaborate security procedures designed into them, a recent study from researchers at Stanford University and Microsoft (www.microsoft.com) concludes that EV certificates and EV-aware browsers don't help ordinary users identify fake sites used in phishing attacks. Given the scarcity of EV-aware browsers and sites, legitimate Web operators can only hope that as users gain familiarity with the EV system, their ability to discriminate against bogus sites will increase.

Deploying CRM

Continued from Page 26
or three CRM demos. This can ease training and deployment because it should reveal which system is the most useable and will become a useful tool for the existing workforce.

In terms of CRM costs, most vendors have clear contracts about deployment and maintenance fees, but McCabe warns

there are sometimes hidden costs associated with mobile offerings—even which mobile devices are supported—and that contract extensions are sometimes more costly if you decide to pursue them post-deployment.

McCabe also notes that the easiest CRM solutions, such as ACT! (www.act.com) and Maximizer (www.maximizer.com), are often the ones with the easiest-to-use interface and most basic feature set. More complex installs might offset the chal-

lenges of usability and training by providing more extensive tech support. She notes that Entellium (www.entellium.com) provides 90 days of support and live Internet chat 24 hours a day as a way to ease deployment burdens. Microsoft (www.microsoft.com) says its Dynamics CRM is tightly integrated with Outlook and the Microsoft Office system so users can easily transfer information from Dynamics CRM to Office apps such as Word or Excel.

Streamlined Information Management

A strategy involving maintenance, mobility, and network support is necessary to make the deployment as smooth as possible.

McCabe says, "In smaller companies, a CRM deployment really depends on the current infrastructure, what they want to do and how they will use the CRM package, how much IT support they can provide, and whether they have high integration requirements." □

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WHAT'S HAPPENING

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Hergo Offers A Plethora Of Products To Do That & More

by Robyn Weisman

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ELI HERTZ, the Maspeth, N.Y.,-based founder of Hergo (which is short for Hertz and "ergonomic") Ergonomic Support Systems (www.Processor.com/HergoInc), is no newbie in the computer business. Back in 1982, Hertz and his wife Marilyn founded Hertz Computer, which quickly became the largest IBM PC clonemaker in the New York City metropolitan area. "We sold to many of the banks and brokerage houses in the city and also to other organizations like the Rockefeller Foundation and Hearst Publishing," Hertz says. Hertz computers were featured in well-known computer publications and won awards for their performance and design.

By the mid-1990s, however, Hertz saw that the profit margins in the PC business were going down to almost nothing, and in 1997, he quit making PC clones. During his 15 years in the business, Hertz had become cognizant of certain issues the increased use of technology was bringing to many businesses' workspaces, and that was the mess that came with more PCs, monitors, servers, scanners, printers, and all the wiring and cabling that came along with these items.

"In those days, brokers had different screens for Bloomberg, Reuters, Dow Jones, [and others] on their desks, and if they kicked at something—because many

of them would get angry about one thing or another—all the monitors would fall down," Hertz says. "So I looked to find solutions that would make more efficient use of vertical space in a cubicle" so that a given workspace could handle more wiring and cabling that could be out of the way of the user and allow for easy access to a user's PC and peripherals.

Organization Through Racking Systems

In 1991 Hertz started Hergo to provide workspace solutions for individuals and organizations seeking out better ways to handle their tangle of proliferating technologies. According to Hertz, Hergo started out by manufacturing open racking systems. These varying combinations of shelves, frames, cabinets, and other enclosures were designed from the get-go to fit standard technology specifications, "like LEGOs," says Hertz. All racking systems are slotted in 1-inch increments so users can hang desks, shelves, or anything else they may think of.

According to Hertz, Hergo was the first advertiser in *Network Computing Magazine* that featured these sorts of modular solutions. In addition, Hertz says Hergo was the first company that introduced products to mount PCs and other items. Because all of Hergo's workstation solutions and accessories use interchangeable pieces, anyone from network administrators to

tetchy stockbrokers can reconfigure their offices at will.

Broadening The Product Base

Hergo's solutions have since expanded to include desks and other technical furniture; flat-panel arms for mounting LCD monitors; rackmount LCDs; relay racks; mobile carts, either for desktop or laptop computers; open-frame carts; standing and wall-mount enclosure cabinets, including two models with noise-reduction acoustic foam interiors designed for use with Apple (www.apple.com) Xserve servers; at least eight standard open racking workstation setups; open rack elements for those who need customized workstations; and KVM switches.

In addition, Hergo offers peripherals, such as CPU holders, keyboard trays, cable raceways, filing cabinets, and even touch-up paint to further customize a given workspace. And Hergo can build custom metalwork solutions using its expertise in engineering

Hergo's quality also extends to the materials it uses to build its solutions. Hergo uses 11-gauge steel (equivalent to 0.125 inches—lower gage numbers represent thicker, sturdier steel) that is powder-coated in a range of custom colors. This powder coating offers superior durability, along with superior corrosion and ultraviolet protection. The company's steel frames are fully welded on all sides, and its shelf-weight capacity ranges from 300 pounds for its mounting shelves to 500 pounds for its floor shelves and desktops with telescopic leg support. Hergo backs up its steel products with a lifetime warranty.

Yet More Offerings

Hergo also sells mobile medical and PACS workstations, which help save hospitals and related businesses a great deal of money. Until such carts became available, hospitals had to buy proprietary customized carts that typically cost thousands of dollars to tote their technologies. Hergo's standardization for these medical workstations allows for easy customization at a low price. Moreover, the powder-coated steel used for these portable workstations is easy to sanitize and keep clean, a must for such environments.

Hertz says Hergo has increasingly broadened its solutions to include hydraulic and electric ways to alter the height and angle of chairs, desks, and other components in a given workstation. Hertz says that such advancements allow a shift worker who may share a workspace with workers on other shifts to easily adjust her workspace to fit her ergonomically with minimal effort.

Hergo's customers are a testament to the quality of its products and the service it provides. They include large universities; local, state, and federal government agencies, including the Department of Defense, the U.S. armed forces, and New York City Transit; communications companies such as Verizon and Google; financial service companies, including Visa and Citibank; technology powerhouses such as IBM and HP; and companies in many other verticals. □



and CAD design and the latest in AMADA laser and bending technologies.

The majority of Hergo's products are manufactured at its plant in Maspeth, N.Y. Hertz does outsource the manufacture of certain smaller items to overseas locales, but he believes the efficiency of producing items locally covers a higher percentage of savings. Also, local production allows for quick turnaround for Hergo's standard configurations.

"Although there are some advantages to sending things overseas, overseas quality is not always the best in quality. Too often, you go to the containers, and everything has a tiny flaw," says Hertz. "Our main factory utilizes very sophisticated, up-to-date machinery, and we can check everything out with our own eyes."

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